

Safety Data Sheet

according to WHS Regulations

Printing date 29.01.2024

Version number 1.0

Revision Date 29.01.2024

1 Identification

- **Product identifier**
- **Trade name:** CHINCHEX SILICON DIOXIDE
- **CAS Number :**
7631-86-9
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture:**
Product basic information: Flowable Dust
Product Nature: Dust
- **Sector of Use:**
Consumer uses: Private households / general public / consumers
Industrial/Professional use
- **Uses advised against:**
Do not use directly on skin, may cause irritation. Avoid ingesting the insecticide or using it on items that come into direct contact with food or utensils.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Company Name: CHINCHEX LIMITED
Full address: 12F, Wing Fat Loong Building. B6, Wai Yip St. Kwon Tong, Hong Kong
Telephone: +852 (5417 6383)
Email: info@chinchex.com
- **Other Australia contact point:** Not available
- **Emergency telephone number:**
Australia Poisons Information Centre
Tel: 13 11 26
Company Name: CHINCHEX LIMITED
Emergency Contact Person: Agurtzane Pombo
Emergency Contact No.: 6480 7024
- **Reference Number:** HKHC2401000532HC -3282

2 Hazard(s) Identification

- **Classification of the substance or mixture**
The product is not classified according to Australian Model Work Health and Safety Regulations.
 - **Information concerning particular hazards for human and environment:**
The product has not to be labeled due to the calculation procedure of Australia Model Work Health and Safety Regulations.
 - **Classification system:**
The classification is according to the latest edition of Australia Model Work Health and Safety Regulations, and extended by company and literature data.
-
- **Label elements**
 - **Hazard pictograms** Not applicable.
 - **Signal word** Not applicable.
 - **Hazard statements** Not applicable.
 - **Precautionary statements** Not applicable.

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3 Composition and Information on Ingredients

- **Chemical characterisation: Substances**
- **Description:**
7631-86-9 Silicon dioxide

4 First Aid Measures

- **Description of first aid measures**
- **General information :**
Take affected persons out into the fresh air.
Rinse affected skin areas with water.
Seek medical assistance if discomfort continues.
- **After inhalation:**
Take affected persons into fresh air.
Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Rinse affected skin areas with water.
Generally the product does not irritate the skin.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water.
Contact lenses user should remove contact lenses immediately when possible.
If symptom persists, consult a doctor.
- **After swallowing:**
Call a doctor immediately.
Rinse mouth with water and spit the fluids out.
In case of vomiting, hold the head of the affected person low with the body in a prone position in order to avoid aspiration.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire Fighting Measures

- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Not available
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Hazchem Code** Not applicable

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected people away.

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- **Environmental precautions:**
Damp down dust with water spray.
Keep contaminated washing water and dispose of appropriately.
- **Methods and material for containment and cleaning up:**
Use appropriate industrial vacuum cleaners to collect the product.
Dispose of the material collected according to regulations.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

- **Precautions for safe handling**
Avoid breathing dust.
Avoid contact with eyes.
For the general occupational hygienic measures refer to Section 8.
- **Information about fire - and explosion protection:** Fire fighting equipment must be available.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:** Store in a cool, dry and well-ventilated place.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Label containers and storage units clearly.
Keep container tightly sealed.
- **Specific end use(s)** Flowable Dust Insecticide

8 Exposure controls and personal protection

- **Ingredients with limit values that require monitoring at the workplace:**

CAS: 7631-86-9 Silicon dioxide

WES (Australia) Long-term value: 2 mg/m³

- **Regulatory information** WES (Australia): Workplace Exposure Standards for Airborne contaminants
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
Based on the composition shown in section 3, the following measures are suggested for occupational safety measure.
- **Appropriate engineering controls** See section 7 for information about design of technical facilities.
- **Personal protective equipment:**
- **Respiratory protection:**
Approved dust or mist respirator should be used if airborne particulate is generated when handling this material.
- **Protection of hands:**



Protective gloves

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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

· **Body protection:**



Protective work clothing

9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **Appearance:**

· **Form:**

Powder

· **Colour:**

White

· **Odour:**

Odourless

· **Odour threshold:**

Not available

· **pH-value at 25±1 °C:**

6.70 (1% w/v aqueous solution)

· **Melting point/freezing point:**

Not available

· **Initial boiling point and boiling range:**

Not available

· **Flash point:**

Not available

· **Flammability (solid, gas):**

Not determined.

· **Auto-ignition temperature:**

Not available

· **Decomposition temperature:**

Not available

· **Explosion limits:**

· **Lower:**

Not available

· **Upper:**

Not available

· **Vapour pressure:**

Not applicable

· **Density:**

Not available

· **Relative density:**

Not available

· **Vapour density:**

Not applicable

· **Solubility in / Miscibility with**

· **water:**

Not available

· **Viscosity:**

· **Dynamic:**

Not applicable

· **Kinematic:**

Not applicable

· **Particle characteristics:**

Not available

· **Other information**

Acidity (Calculated as H₂SO₄): 0.0054 % m/m

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10 Stability and Reactivity

- **Reactivity:**

No decomposition if used according to specifications.

No further relevant information available.

- **Chemical stability:**

Stable under recommended storage conditions.

The submitted study report, entitled "Determination of Accelerated Storage Stability and Corrosion Characteristics of Chinchex Silicon Dioxide" by third party laboratory INTOX PVT. LTD., performed in compliance with the Study Plan No. P/PCP4144/STB-AS/22 which incorporated the recommendations made in Guidelines: CIPAC MT 46.3, OPPTS 830.6320, indicate that Chinchex Silicon Dioxide was stable at accelerated storage temperature ($54 \pm 2^\circ\text{C}$) up to storage period of 14 days. The findings of the submitted report are briefly summarized below:

The study was conducted in two steps, Validation of Flame Atomic Absorption method for Silicon and determination of Accelerated Storage Stability and Corrosion Characteristic of Chinchex Silicon Dioxide. The test item was subjected to accelerated storage at $54 \pm 2^\circ\text{C}$ for 14 days in PE bottles. The test item was subjected to tests like active ingredient content, pH, acidity, Bulk Density, Dry Sieve and physical appearance before storage and at the end of accelerated storage period. The test item placed in contact with PE bottles (packaging materials) were observed for the compatibility of test item with it. The packaging materials were examined visually for any corrosion characteristics such as "Perforations", "Darkening", "Leaking or rust at the seam", "change in gross weights" due to storage.

The various parameters tested in the study at the end of accelerated storage period (at $54 \pm 2^\circ\text{C}$ for 14 days) did not significantly differ from the results obtained before storage and were found within specification limits. The properties of formulation were not adversely affected by the storage at high temperature.

From the results obtained from the study, it is concluded that Chinchex Silicon Dioxide was found to be stable at $54 \pm 2^\circ\text{C}$ for 14 days storage.

- **Possibility of hazardous reactions:** No dangerous reactions known.

- **Conditions to avoid** No further relevant information available.

- **Incompatible materials:** No further relevant information available.

- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects**

- **Acute toxicity**

Based on available data, the classification criteria are not met.

Acute oral toxicity:

The submitted acute oral toxicity study by third party laboratory TECMOL FARMACÉUTICA S.A.S (Analysis no. 22K0344-T), indicate that the LD50 of the product CHINCHEX SILICON DIOXIDE is higher than 4000 mg/kg body weight. The findings of the submitted report are briefly summarized below:

This study was conducted in three doses (2000, 4000 and 6000 mg/kg body weight). These doses were administered orally to the group of rats (3 females) and (3 males) after a fasting period of 12 hours.

After the first dosage, the animals were observed permanently during the day and then they were observed twice a day in order to take evidence of any alteration (physiological and organic) or death, as well as to determine the time of death and the duration and reversibility of the effects.

After completing the study (14 days), the animals were sacrificed to carry out an autopsy and determine any macroscopic abnormality of the organs by comparing them to the control animals.

After each necropsy, histopathology tests were done to establish any microscopic abnormality of the organs.

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With the above, it was established that, under the test conditions, the LD50 of the product CHINCHEX SILICON DIOXIDE is higher than 4000 mg/kg body weight.

Acute dermal toxicity:

The submitted acute dermal toxicity study by third party laboratory TECMOL FARMACÉUTICA S.A.S (Analysis no. 22K0345- T), indicate that the dermal dose DL50 of the product CHINCHEX SILICON DIOXIDE was greater than 4000 mg/kg body weight. The findings of the submitted report are briefly summarized below:

The product was to assess CHINCHEX SILICON DIOXIDE white New Zealand rabbits were used. This study was conducted in one doses (4000 mg/kg body weight). These doses were administered once in the epidermis of the rabbits (5 females) after a fasting period of 12 hours. The administration of the doses was done through 5 patches.

After the first dosage, the animals were observed permanently during the day and then they were observed twice a day in order to have evidence of edema and erythema. This study was done in 14 days.

After completing the study (14 days), the animals were sacrificed and necropsied to establish macroscopic abnormalities in organs and compare them to the control animals.

The results showed that under the conditions of this study, Dermal Dose DL50 of the product CHINCHEX SILICON DIOXIDE was greater than 4000 mg/kg body weight.

Acute inhalation toxicity:

The submitted acute inhalation toxicity study by third party laboratory TECMOL FARMACÉUTICA S.A.S (Analysis no. 23B0076- T), indicate that the average lethal dose of the product CHINCHEX SILICON DIOXIDE was established to be greater than 20.0 mg/L which corresponds to a GHS classification 5. The findings of the submitted report are briefly summarized below:

The product to be evaluated was CHINCHEX BSILICON DIOXIDE. Wistar rats were used.

The study was carried out at four doses (0.5 mg/L, 2.0 mg/L, 10.0 mg/L and 20.0 mg/L) which were dosed by inhalation to groups of 5 males per dose, after a fasting period of 12 hours.

The observation of the animals after dosing was carried out permanently during the first day of administration and then twice a day to control and evidence behavioral, physiological and organic alterations, death, in order to determine the duration and reversibility of the effects and time of death.

At the end of the study (14 days) all animals were sacrificed and necropsied to establish macroscopic abnormalities of the organs, compared with the control animals.

After the necropsy, histopathological examinations were performed to establish the microscopic abnormalities of the organs.

With the above, the conditions of average lethal dose of the product CHINCHEX SILICON DIOXIDE was established to be greater than 20.0 mg/L which corresponds to a GHS classification 5.

LD/LC50 values relevant for classification:

Oral	LD50	> 4000 mg/kg (rat)
Dermal	LD50	> 4000 mg/kg (rabbit)
Inhalative	LC50	> 20.0 mg/l (rat)

Skin corrosion/irritation:

The submitted GLP Study Report by third party laboratory STC (Dongguan) Company Limited (Report no.: DY22040196), conducted according to ISO 10993-10, Biological evaluation of medical devices - Part 10: Tests for irritation and skin sensitization (2010), indicate that the irritation response category of Chinchex Silicon Dioxide was categorized as negligible. The findings of the submitted report are briefly summarized below:

The test article, Chinchex Silicon Dioxide, was evaluated for primary skin irritation in rabbits. The test articles were applied directly to the tested animal without any treatment. 0.9% sodium chloride injection as negative control solution. Two test article and two 25mm x 25mm sections of absorbent gauze patches with 0.5ml control solution were topically applied to the skin of each of three rabbits and left in place for 4 hours. The sites were graded for erythema and edema at 1, 24, 48 and 72 hours after removal of the single application. There was no erythema and no edema observed on the skin of the animals treated with the test article. The

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Primary Irritation Index for the test article was calculated to be 0.0. The response of the test article was categorized as negligible.

• **Serious eye damage/irritation:**

The submitted GLP Study Report by third party laboratory STC (Dongguan) Company Limited (Report no.: DY22040198), conducted according to ISO 10993-23:2021 Biological evaluation of medical devices - Part 23 Tests for irritation, indicate that the Chinchex Silicon Dioxide was judged as non-irritation. The findings of the submitted report are briefly summarized below:

The test article, Chinchex Silicon Dioxide, was evaluated for eye irritation in rabbits. The test article was used directly for test. When gently compacted, instil that amount which occupies a volume of 100µl and does not weigh more than 100mg into the lower conjunctival sac of one eye of 3 rabbits in a group. Following instillation hold the eyelids together for approximately 1s. The eyes of the animals were examined at 1 hour, 24 hours, 48 hours and 72 hours after dripping. If there was no appeared eye irritation at 72 h, the test could be terminated. Under the conditions of this experiment, no appeared eye irritation was observed at 1, 24, 48 or 72 hours after contact, and the score of cornea, iris and conjunctiva was 0. The test article was judged as non-irritation.

• **Respiratory or skin sensitisation:**

The submitted GLP Study Report by third party laboratory STC (Dongguan) Company Limited (Report no.: DY22040197), conducted according to ISO 10993-10:2021, Biological evaluation of medical devices - Part 10 Tests for skin sensitization, indicate that the Chinchex Silicon Dioxide was not considered a sensitizer in the closed-patch test. The findings of the submitted report are briefly summarized below:

The test article, Chinchex Silicon Dioxide was evaluated for the potential to cause delayed dermal contact sensitization in the closed-patch test. The test articles were extracted in Sesame oil. Each extract was directly applied to 10 test animals for 6 hours, 3 times a week for 3 weeks. The control group was treated with the same method of Sesame oil, and 5 animals per group. Following a recovery period, the test and control animals received a challenge patch of the appropriate the test sample for 6 hours. All sites were scored for dermal reactions at 24 and 48 hours after patch removal.

The test article extracts showed no evidence of causing delayed dermal contact sensitization in the guinea pig. The test article was not considered a sensitizer in the closed-patch test.

- **Gem cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological Information

• **Toxicity**

• **Aquatic toxicity:** No further relevant information available.

• **Persistence and degradability:** No further relevant information available.

• **Bioaccumulative potential:** No further relevant information available.

• **Mobility in soil:** No further relevant information available.

• **Other adverse effects** No further relevant information available.

• **Additional ecological information:** No further relevant information available

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Small quantities can be disposed of with household waste.
Must be disposed of in compliance with the respective national and local regulations.
- **Uncleaned packaging:**
- **Recommendation:**
Packaging / Container material: kraft paper bag and plastic bottles
Non contaminated packagings may be recycled.
Contaminated paper packaging must be disposed of according to official regulations.
Empty contaminated plastic bottle packagings thoroughly. They may be recycled after thorough and proper cleaning.
Otherwise, disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· ADG, IMDG, IATA	Not applicable
· UN proper shipping name	
· ADG, IMDG, IATA	Not applicable
· Transport hazard class(es)	
· ADG, IMDG, IATA	
· Class	Not applicable
· Label	Not applicable
· Packing group	
· ADG, IMDG, IATA	Not applicable
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· EMS Number:	Not applicable
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· Hazchem or Emergency Action Code	Not applicable
· UN "Model Regulation":	Not applicable

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

- **Australian Inventory of Industrial Chemicals**
Substance is listed.

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· **Standard for the Uniform Scheduling of Medicines and Poisons**

Substance is not listed.

· **Australia: Priority Existing Chemicals**

Substance is not listed.

16 Other information

· *****

The contents and format of this SDS are in accordance with Australian Model Work Health and Safety Regulations.

DISCLAIMER OF LIABILITY

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

· **Date of preparation / last revision** 29.01.2024

· **Abbreviations and acronyms:**

ADG: Australia Dangerous Goods Code

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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End of Document

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