

MATERIAL SAFETY DATA SHEET

Synthetic Silica Glass

Version

1.05

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MATERIALS**

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1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Product information

Trade Name : NOVAXIL™
Material : Synthetic Silica Glass
Company : Cristal Materials Corporation
53-3F, Lane 258, Ruiguang Rd. Neihu, Taipei 114 Taiwan
Telephone : +886 (2) 2657 6200
Telefax : +886 (2) 2657 9109
Email address : junglin.tsai@crystalmat.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Information on ingredients / Hazardous components

- Silicon dioxide, SiO₂, 100%, chemically prepared

CAS-No. 112945-52-5
7631-86-9
EC-No. 231-545-4

See chapter 16 for text of risk phrases

3. HAZARDS IDENTIFICATION

Additional safety information for humans and the environment

On the basis of our data the product is not a hazardous substance as defined by the Chemicals Act or Hazardous Substance Ordinance in the currently valid versions.

4. FIRST AID MEASURES

Inhalation

In case product dust is released:

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Possible discomfort: cough, sneezing

Move victims into fresh air.

Skin contact

Wash off with plenty of water and soap.

Eye contact

Possible discomfort is due to foreign substance effect.

Rinse thoroughly with plenty of water keeping eyelid open.

In case of persistent discomfort: Consult an ophthalmologist.

Ingestion

Clean mouth with water and drink afterwards plenty of water.

After absorbing large amounts of substance / In case of discomfort: Supply with medical care.

Notes to physician

No hazards which require special first aid measures.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

All extinguishing substances suitable.

Specific hazards during fire fighting

None.

Further information

Water used to extinguish fire should not enter drainage systems, soil or stretches of water.

Ensure there are sufficient retaining facilities for water used to extinguish fire.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

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Personal precautions

Wear personal protective equipment.

Methods for cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Handling

Safe handling advice

If necessary: Local ventilation.

Advice on protection against fire and explosion

Take precautionary measures against static discharges.

Storage

Requirements for storage areas and containers

No special precautions required.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Personal protective equipment

Respiratory protection

No special protective equipment required.

If dust occurs: Dust mask with P2 particle filter

Hand protection

Wear protective gloves made of the following materials: material, rubber, leather.

The material thickness and rupture time data do not apply to non-solute solids / dusts.

Eye protection

No special protective equipment required.

If dust occurs: basket-shaped glasses

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Skin and body protection

No special protective equipment required.

Hygiene measures

When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work.

To ensure ideal skin protection: use super fatted soaps and skin cream for skin care.

Wash contaminated clothing before re-use.

Protective measures

Handle in accordance with good industrial hygiene and safety practices.

If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.

If the limits at the workplace are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	transparent glass like material
Color	colorless
Odor	odorless

Safety data

pH	not applicable
Melting point/range	ca. 1700 °C
Boiling point/range	not applicable
Flash point	not applicable
Flammability	not applicable
Ignition temperature	not applicable
Autoinflammability	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Minimum ignition energy	> 10 Joule
Vapour pressure	not applicable
Density	ca. 2,2 g/cm ³ (20 °C)

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Tapped density	not applicable
Water solubility	insoluble
Partition coefficient (n-octanol/water)	not applicable
Viscosity, dynamic	not applicable

10. STABILITY AND REACTIVITY

Hazardous decomposition products	None
Thermal decomposition	> 2000 °C

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	LD50 Rat: > 10000 mg/kg Method: literature
Acute inhalation toxicity	LC0 Rat: 0,139 mg/l / 4 h Method: literature (maximum concentration attainable in experiments) No deaths occurred.
Acute dermal toxicity	LD50 Rabbit: > 5000 mg/kg Method: literature
Skin irritation	Rabbit / literature not irritating
Eye irritation	Rabbit / literature not irritating
Repeated dose toxicity	Oral no negative effects inhalative No irreversible changes and no indication of silicosis.

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Mutagenicity assessment

In vitro and in vivo experiments, no evidence of mutagenic effects, literature.

Carcinogenicity

no negative effects

Toxicity to reproduction

no negative effects

Human experience

Silicosis or other product specific illnesses of the respiratory tract were not observed in association with the product.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Behavior in environmental compartments

Ecotoxicity effects

Toxicity to fish

LC50 (Brachydanio rerio): > 10000 mg/l / 96 h

Method: OECD 203

Toxicity to daphnia

EC50 Daphnia magna: > 10000 mg/l / 24 h

Method: OECD 202

13. DISPOSAL CONSIDERATIONS

Product

Can be disposed of with domestic refuse in accordance with the necessary technical regulations following consultation with waste disposal expert(s) and the responsible authorities.

Uncleaned packaging

Offer rinsed packaging material to local recycling facilities.

Other countries: observe the national regulations.

Waste Key Number

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No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer.

The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.

14. TRANSPORT INFORMATION

Transport/further information

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

Labelling according to EC Directives

Other data

On the basis of our data the product is not a hazardous substance as defined by the Chemicals Act or Hazardous Substance Ordinance in the currently valid versions.

National legislation

16. OTHER INFORMATION

Risk phrase (R phrase) texts

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.