

**1 Identification**

- **Product identifier**
- **Trade name: Nori-Vest : Powder**
- **Article number: US863-P**
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Dental refractory model materials
- **Details of the supplier of the safety data sheet**
- **Manufacturer:**  
Kuraray Noritake Dental Inc.  
300 Higashiyama, Miyoshi-cho,  
Miyoshi, Aichi, 470-0293  
Japan
- **Contact information:**  
Kuraray America, Inc.  
33 Maiden Lane, 6th Floor, New York,  
NY 10038 U.S.A.  
Tel: 800-879-1676  
Fax: 888-700-5200  
Website: www.kuraraydental.com
- **Emergency telephone number:**  
For chemical emergency spill, leak, fire, exposure or accident  
Call CHEMTREC day and night  
Within USA and Canada: 1-800-424-9300 CCN706984 or  
+1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 1A H350 May cause cancer.

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS07, GHS08
- **Signal word** Danger
- **Hazard-determining components of labeling:**  
Quartz (SiO<sub>2</sub>)  
cristobalite
- **Hazard statements**  
H302 Harmful if swallowed.  
H350 May cause cancer.  
H372 Causes damage to organs through prolonged or repeated exposure.
- **Precautionary statements**  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.

(Contd. on page 2)

**Trade name: Nori-Vest : Powder**

(Contd. of page 1)

- P281 Use personal protective equipment as required.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P314 Get medical advice/attention if you feel unwell.
- P330 Rinse mouth.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards**

- Particular danger of slipping on spilled product.
- Dust generation.

**Results of PBT and vPvB assessment**

- PBT:** Not applicable.
- vPvB:** Not applicable.

**3 Composition/information on ingredients**

- Chemical characterization: Mixtures**
- Description:** Mixture of substances listed below with nonhazardous additions.

**Dangerous components:**

1344-28-1	aluminium oxide		10-30%
1309-48-4	magnesium oxide		5-25%
14808-60-7	Quartz (SiO <sub>2</sub> )	☠ Carc. 1A, H350; STOT RE 1, H372; ⚠ Acute Tox. 4, H302	30-60%
14464-46-1	crystalite	☠ Carc. 2, H351; STOT RE 1, H372	7-13%

- Other ingredients:** Ammonium dihydrogenorthophosphate

**4 First-aid measures**

- Description of first aid measures**
- After inhalation:** Supply fresh air; consult doctor in case of complaints.
- After skin contact:** Generally the product does not irritate the skin.
- After eye contact:** Rinse opened eye for several minutes under running water.
- After swallowing:** If symptoms persist consult doctor.
- Information for doctor:**
- 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**

- Extinguishing media**
- Suitable extinguishing agents:** Product is not flammable
- Special hazards arising from the substance or mixture** No further relevant information available.
- Advice for firefighters**
- Protective equipment:** No special measures required.

**6 Accidental release measures**

- Personal precautions, protective equipment and emergency procedures**  
Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotective personnel.
- Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

(Contd. on page 3)

**Trade name: Nori-Vest : Powder**

(Contd. of page 2)

- **Methods and material for containment and cleaning up:**  
Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways.  
Use appropriate Personal Protective Equipment (PPE).  
Vacuum or sweep material and place in a disposal container. Provide ventilation.
- **Reference to other sections**  
No dangerous substances are released.  
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**

- **Handling:**
- **Precautions for safe handling**  
Avoid contact with skin and eyes. Do not swallow. Avoid generating dust. Do not breathe dust/fume/gas/mist/vapors/spray.  
Ensure good ventilation/exhaustion at the workplace.  
Handle and open container with care.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.  
Store at room temperature.  
Store under lock and key and out of the reach of children.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

**Components with limit values that require monitoring at the workplace:**

**14808-60-7 Quartz (SiO<sub>2</sub>)**

PEL (USA)	see Quartz listing
REL (USA)	0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV (USA)	0.025* mg/m <sup>3</sup> *as respirable fraction

**1344-28-1 aluminium oxide**

PEL (USA)	15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV (USA)	1* mg/m <sup>3</sup> *as respirable fraction

**1309-48-4 magnesium oxide**

PEL (USA)	15* mg/m <sup>3</sup> fume; *total particulate
TLV (USA)	10* mg/m <sup>3</sup> *as inhalable fraction

(Contd. on page 4)

**Trade name: Nori-Vest : Powder**

(Contd. of page 3)

<b>14464-46-1 cristobalite</b>	
PEL (USA)	½ value from respirable dust formulae for Quartz
REL (USA)	0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV (USA)	0.025* mg/m <sup>3</sup> *as respirable fraction

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** Do not inhale dust / smoke / mist.

· **Breathing equipment:**

Suitable respiratory protective device recommended.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**



Protective gloves

· **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

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

· **Eye protection:** Goggles recommended during refilling.

**9 Physical and chemical properties**

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

· **General Information**

· **Appearance:**

· **Form:** Powder

· **Color:** White

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· **Melting point/Melting range:** Not determined.

· **Boiling point/Boiling range:** Not determined.

· **Flash point:** Not determined.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

(Contd. on page 5)

**Trade name: Nori-Vest : Powder**

(Contd. of page 4)

· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Oxidizing properties</b>	Not determined.
· <b>Vapor pressure:</b>	Not determined.
· <b>Density at 20 °C:</b>	3 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	Not determined
· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.
· <b>Other information</b>	No further relevant information available.

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **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:** None

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Mechanical effects only.
- **Sensitization:** Sensitizing effect through inhalation is possible with prolonged exposure.
- **Other information (about experimental toxicology):**  
Nori-Vest ; Powder
  
- LD50 oral rat     300-2000 mg/kg
- LD50 dermal rat    Not determined
- LC50 inhalation rat   Not determined
  
- Quartz (SiO<sub>2</sub>)
- LD50 oral rat     500 mg/kg
  
- magnesium oxide
- LD50 oral rat     > 5000 mg/kg
- **Additional toxicological information:**  
Harmful

(Contd. on page 6)

**Trade name: Nori-Vest : Powder**

(Contd. of page 5)

The product is not subject to classification according to internally approved calculation methods for preparations:

<b>· IARC (International Agency for Research on Cancer)</b>		
14808-60-7	Quartz (SiO <sub>2</sub> )	1
14464-46-1	crystalobalite	1
<b>· NTP (National Toxicology Program)</b>		
14808-60-7	Quartz (SiO <sub>2</sub> )	K
14464-46-1	crystalobalite	K

**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation:** Disposal must be made according to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

· <b>UN-Number</b>	
· <b>DOT, ADR, ADN, IMDG, IATA</b>	Void
· <b>UN proper shipping name</b>	
· <b>DOT, ADR, ADN, IMDG, IATA</b>	Void
· <b>Transport hazard class(es)</b>	
· <b>DOT, ADR, ADN, IMDG, IATA</b>	
· <b>Class</b>	Void
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	Void
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Not applicable.

(Contd. on page 7)

**Trade name: Nori-Vest : Powder**

(Contd. of page 6)

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** Void

**15 Regulatory information**

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

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

1344-28-1 aluminium oxide

· **Proposition 65**

· **Chemicals known to cause cancer:**

14808-60-7 Quartz (SiO<sub>2</sub>)

14464-46-1 cristobalite

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

14808-60-7	Quartz (SiO <sub>2</sub> )	A2
1344-28-1	aluminium oxide	A4
1309-48-4	magnesium oxide	A4
14464-46-1	cristobalite	A2

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

14808-60-7 Quartz (SiO<sub>2</sub>)

14464-46-1 cristobalite

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H302 Harmful if swallowed.

H350 May cause cancer.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

(Contd. on page 8)

**Trade name: Nori-Vest : Powder**

(Contd. of page 7)

· **NFPA ratings (scale 0 - 4)**

Health = 3  
Fire = 0  
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = \*3  
Fire = 0  
Reactivity = 0

· **Abbreviations and acronyms:**

Acute Tox. 4: Acute toxicity – Category 4  
Carc. 1A: Carcinogenicity – Category 1A  
Carc. 2: Carcinogenicity – Category 2  
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

· **\* Data compared to the previous version altered.**