

## SAFETY DATA SHEETS

**This SDS packet was issued with item:**

075217229

N/A

Printing date 05/07/2012

Reviewed on 04/01/2012

**1 Identification of the substance/mixture and of the company/undertaking**

- **Product identifier**
- **Trade name:** CARIES DETECTOR
- **Article number:** US043
- **Application of the substance / the preparation** Caries detection device
- **Details of the supplier of the safety data sheet**
- **Manufacturer:**  
Kuraray Noritake Dental Inc.  
1621 Sakazu, Kurashiki, Okayama 710-0801,  
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](http://www.kuraraydental.com)

**2 Composition/information on ingredients**

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

· **Dangerous components:**

57-55-6 propane-1,2-diol

 H302

&gt; 90%

- **Other ingredients:** Dyes

**3 Hazards identification**

- **Classification of the substance or mixture**  
.....  
H303 May be harmful if swallowed.
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
  - **Information concerning particular hazards for human and environment:**  
The product does not have to be labelled due to the calculation procedure of international guidelines.
  - **Classification system:**  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- 
- **Label elements**
  - **GHS label elements**  
The product is classified and labelled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms** Void
  - **Signal word** Warning
  - **Hazard statements**  
H303 May be harmful if swallowed.
  - **Precautionary statements**  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
  - **Classification system:**
  - **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 1  
Reactivity = 0

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USA

Printing date 05/07/2012

Reviewed on 04/01/2012

Trade name: CARIES DETECTOR

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

**4 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.

**5 Firefighting measures**

- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** No special measures required.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections** No dangerous substances are released.

**7 Handling and storage**

- **Handling:**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location (2-25°C).
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **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.

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

57-55-6 propane-1,2-diol

WEEL 10 mg/m<sup>3</sup>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.

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USA

Printing date 05/07/2012

Reviewed on 04/01/2012

**Trade name: CARIES DETECTOR**

(Contd. of page 2)

**· Protection of hands:**

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. 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 through 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****· General Information****· Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Red
<b>· Odor:</b>	Odorless

**· pH-value:** 5.6

**· Change in condition**

<b>Melting point/Melting range:</b>	-68 °C (propane-1,2-diol)
<b>Boiling point/Boiling range:</b>	185 °C (propane-1,2-diol)

**· Flash point:** 101 °C (propane-1,2-diol)

**· Ignition temperature:** 371.0 °C (propane-1,2-diol)

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

**· Explosion limits:**

<b>Lower:</b>	2.6 Vol % (propane-1,2-diol)
<b>Upper:</b>	12.6 Vol % (propane-1,2-diol)

**· Vapor pressure:** 0.1 hPa (20°C, propane-1,2-diol)

**· Density:** Not determined.

**· Vapour density** Not applicable

**· Solubility in / Miscibility with**

**Water:** Fully miscible.

**· Segregation coefficient (n-octanol/water):** Not applicable

**· Other information** No further relevant information available.

**10 Stability and reactivity****· Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

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

**· Hazardous decomposition products:** Carbon monoxide and carbon dioxide

— USA —

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Printing date 05/07/2012

Reviewed on 04/01/2012

Trade name: CARIES DETECTOR

(Contd. of page 3)

**11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

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

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**12 Ecological information**

- **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.
- **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.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**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. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

(Contd. on page 5)

USA

Printing date 05/07/2012

Reviewed on 04/01/2012

Trade name: CARIES DETECTOR

(Contd. of page 4)

· UN "Model Regulation":

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**15 Regulatory information**

## · Sara

## · Section 355 (extremely hazardous substances):

None of the ingredient is listed.

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

None of the ingredients is listed.

## · TSCA (Toxic Substances Control Act):

All ingredients are listed.

## · Proposition 65

## · Chemicals known to cause cancer:

None of the ingredients is listed.

## · 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.

## · Cancerogenity categories

## · EPA (Environmental Protection Agency)

None of the ingredients is listed.

## · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

## · OSHA-Ca (Occupational Safety &amp; Health Administration)

None of the ingredients is listed.

**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.

## · Version: 3

## · Relevant phrases

H302 Harmful if swallowed.

-USA-

**Safety Data Sheet**  
acc. to OSHA HCS

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- **Manufacturer:**  
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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](http://www.kuraraydental.com)

**2 Composition/information on ingredients**

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

· **Dangerous components:**

57-55-6 propane-1,2-diol

 H302

&gt; 90%

- **Other ingredients:** Dyes

**3 Hazards identification**

- **Classification of the substance or mixture**  
.....  
H303 May be harmful if swallowed.
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
  - **Information concerning particular hazards for human and environment:**  
The product does not have to be labelled due to the calculation procedure of international guidelines.
  - **Classification system:**  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
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- **Label elements**
  - **GHS label elements**  
The product is classified and labelled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms** Void
  - **Signal word** Warning
  - **Hazard statements**  
H303 May be harmful if swallowed.
  - **Precautionary statements**  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
  - **Classification system:**
  - **NFPA ratings (scale 0 - 4)**

Health = 0  
Fire = 1  
Reactivity = 0

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**Trade name: CARIES DETECTOR**

(Contd. of page 1)

## · HMIS-ratings (scale 0 - 4)

HEALTH	0	Health = 0
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

## 4 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.

## 5 Firefighting measures

- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections** No dangerous substances are released.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location (2-25°C).
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **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.

### · Components with limit values that require monitoring at the workplace:

57-55-6 propane-1,2-diol

WEEL 10 mg/m<sup>3</sup>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
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**Form:** Liquid

**Color:** Red

**· Odor:** Odorless

**· pH-value:** 5.6

**· Change in condition**

**Melting point/Melting range:** -68 °C (propane-1,2-diol)

**Boiling point/Boiling range:** 185 °C (propane-1,2-diol)

**· Flash point:** 101 °C (propane-1,2-diol)

**· Ignition temperature:** 371.0 °C (propane-1,2-diol)

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**· Explosion limits:**

**Lower:** 2.6 Vol % (propane-1,2-diol)

**Upper:** 12.6 Vol % (propane-1,2-diol)

**· Vapor pressure:** 0.1 hPa (20°C, propane-1,2-diol)

**· Density:** Not determined.

**· Vapour density** Not applicable

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**Water:** Fully miscible.

**· Segregation coefficient (n-octanol/water):** Not applicable

**· Other information** No further relevant information available.

**10 Stability and reactivity****· Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

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

**· Hazardous decomposition products:** Carbon monoxide and carbon dioxide

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**Trade name: CARIES DETECTOR**

(Contd. of page 3)

**11 Toxicological information**

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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to classification according to internally approved calculation methods for preparations:  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**12 Ecological information**

- **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.
- **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.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**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. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

(Contd. on page 5)

USA

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Trade name: CARIES DETECTOR

(Contd. of page 4)

· UN "Model Regulation":

-

**15 Regulatory information**

## · Sara

## · Section 355 (extremely hazardous substances):

None of the ingredient is listed.

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## · Proposition 65

## · Chemicals known to cause cancer:

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## · EPA (Environmental Protection Agency)

None of the ingredients is listed.

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H302 Harmful if swallowed.

USA