

# MATERIAL SAFETY DATA SHEET

Product Name: ES LIQUID  
MSDS No ES LIQUID (J2005—G2)E ,Ver1.2  
Revised: 1<sup>st</sup> April, 2012

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## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

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### 1.1 Product identifier

Trade name/designation ES LIQUID

### 1.2 Relevant identified uses of the substance or mixture and uses advised

Relevant identified uses Dental Material

Uses advised against No information

### 1.3 Details of the supplier of the safety data sheet

• Manufacturer:

Kuraray Noritake Dental Inc.  
300 Higashiyama, Miyoshi-cho, Miyoshi, Aichi 470-0293, Japan

• Supplier:

For US

Kuraray America, Inc.  
33 Maiden Lane, 6th Floor, New York, NY 10038 U.S.A.  
Phone: 800-879-1676 Fax: 888-700-5200  
Website: www.kuraraydental.com

For Europe

Kuraray Europe GmbH  
Philipp-Reis-Str. 4, 65795 Hattersheim am Main, Germany  
Phone: +49 (0)69 305 35 840 Fax: +49 (0)69 305 35 640  
E-mail: dental@kuraray.de

For Other countries

Kuraray Noritake Dental Inc.

• Information department: Supplier

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## 2. HAZARDS IDENTIFICATION

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### 2.1 Classification of the substance

GHS classification

Not classified.

### 2.2 Label elements

Hazard pictograms

No pictogram

Signal word:

No signal word

Hazard statements:

No statement

Precautionary statements:

No statement

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## 3. COMPOSITION / INFORMATION ON INGREDIENTS

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3.1 Chemical name: Propane-1,2-diol

CAS No.: 57-55-6

3.2 Hazardous ingredients: No hazard ingredient

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## 4. FIRST AID MEASURES

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### 4.1 Description of first aid measure

General notes Get immediate medical advice/attention.

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- If on skin Wash with plenty soap and water.  
If inhaled Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
If swallowed Call a POISON CENTER or doctor/physician if you feel unwell.  
If in eyes Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Notes for the doctor Pass on all available product information.
- 4.2 Most important symptoms and effects, both acute and delayed.  
No information
- 4.3 Indication of immediate medical attention and special treatment needed.  
No information

## 5. FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media  
Suitable extinguishing media  
Water-spray, CO<sub>2</sub>, powder, sand or foam, etc.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Unusable extinguishing media  
No information available.
- 5.2 Special hazards arising from the substance or mixture  
Hazardous combustion products There is a possibility that the gas with stimulation or toxicity is produced depending on the kind of a fire.
- 5.3 Advice for fire-fighters  
If it is not very dangerous, move containers from a fire in the surrounding area.  
During extinction, wear a suitable heat-resistant protective suits against chemicals and self contained breathing apparatus.  
Extinguish fire by pouring or spreading extinguishing media on the origin of a fire.  
Extinguish fire from windward side as much as possible.  
Extinguish fire by the method of covering tightly or suffocation is preferable.  
Even after extinction, cool down containers by using plenty of water.

## 6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures  
For non-emergency  
Protective equipment Operators wear suitable protective equipment refer to section 8 and avoid inhalation and contact with eyes and skin.  
Removal of ignition sources, provision of sufficient ventilation, control of dust  
Remove every source of ignition immediately. (Prohibit smoking, using sparks and flames nearby this product.) Ventilate for exhaust to keep concentration in air below a limit of exposure.  
Emergency procedures Isolate this product immediately and keep proper distance to every direction as released area.  
Stop leakage, if it is not dangerous. Isolate this product immediately and keep proper distance to every direction as released area.  
Indicate that only authorized people can enter.  
Do not touch released product and walk on it.  
For emergency responders  
Wear a chemical protective clothing.

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## 6.2 Environmental Precautions

Prevent inflow into ditches, sinks, basements or closed places. Take notice not to discharge this product to rivers etc. and not to affect environment.

## 6.3 Methods and material for containment and cleaning up

For containment Keep container tightly closed.

For cleaning up If the amount of leakage is small, absorb it by dried sand, soil, sawdust and waste paper and collect it into a tightly covered container made of metal.

Other information No information

6.4 Reference to other sections See section 8 and 13.

6.5 Additional information No information.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

#### Information on safe handling

Take measure against equipments written in section 8 and wear protective equipment.

Exhaust locally and ventilate totally as written in section 8.

#### To prevent handling of incompatible substances or mixtures

Avoid contact with incompatible materials. Please refer to section 10.

#### To minimize the release to the environment

Take notice not to discharge this product to rivers etc. and not to affect environment.

#### Advice on general occupational hygiene

Obtain Instructions before using this product.

Do not handle products until you have read and understood every instruction for safety.

To prevent exposure, wear protective during operation.

Watch out for fire.

Prohibit using heated substances, sparks and fire on the periphery of this product.

Ventilate for exhaust to keep concentration in air below a limit of exposure.

Avoid inhaling dust and fume.

Do not touch, inhale or swallow this product.

Do not take polluted work clothes out of workshops.

Do not drink, eat or smoke during using this product.

Use this product only outside or well ventilated area.

Wash hands well after handling this product.

Avoid emitting this product to environment.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Technical measures and storage conditions

Store in dried and properly ventilated place.

Install equipments for lighting and ventilation which are necessary for handling and storing dangerous goods in a storage place.

#### Packaging materials

If containers are stipulated in transportation regulations of containers United Nations.

#### Requirements for storage rooms and vessels

Store apart from dangerous substance to mix and touch.

Seal a container and store it in a well ventilated and cool place.

It is preferable to store a container in a locked place.

#### Further Information on storage conditions

No information

### 7.3 Specific end use(s)

#### Recommendations

No information

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Industrial sector specific solutions  
No information

## 8.EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Occupational Exposure limit values  
No Information

### 8.2 Exposure controls

#### Appropriate engineering controls

When the mists are generated, the ignition source is made to seal up, and the exhaust device is installed. Install ventilation facility if dust and fume occurs during hot heated processes.

#### Personal protection equipment

Eye and face protection : Use appropriate protectors for eyes.  
Skin protection  
Hand protection : Use appropriate protective gloves.  
Body protection : Use appropriate protective clothes and masks if necessary.  
Other protection : —  
Respiratory protection : Wear appropriate respiratory protection.  
Thermal hazards : —

## 9.PHYSICAL AND CHEMICAL PROPERTIES

Physical state, shape and colors etc.	No data
Odor	No data
pH	No data
Melting point/coagulation point	-59°C
Boiling point	187.6°C
Flash point	99°C
Explosive range	No data
Vapor pressure	0.129mmHg
Vapor density(air=1)	No data
Relative density (density)	1.036
Solubility	1000000mg/L
Partition coefficient: octanol/ water	-0.92
Auto-ignition temperature	No data
Decomposition temperature	No data
Limit value of odor	No data
Vaporization speed (butyl acetate=1)	No data
Combustion Characteristics (solid and gas)	No data
Viscosity	No data

## 10.STABILITY AND REACTIVITY

### 10.1 Reactivity

Not in particular.

### 10.2 Chemical Stability

Stable, if it is use and a storage method described in this MSDS.

### 10.3 Possibility of hazardous reactions

Not in particular.

### 10.4 Conditions to avoid

Not in particular.

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- 10.5 Incompatible materials  
No data.
- 10.6 Hazardous decomposition product  
No data.

## ***11.TOXICOLOGICAL INFORMATION***

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- 11.1 Acute Toxicity  
No information available
- 11.2 Skin corrosion/irritation  
No information available
- 11.3 Serious eye damage/irritation  
No information available
- 11.4 Respiratory or skin sensitization  
No information available
- 11.5 Germ cell mutagenicity  
No information available
- 11.6 Carcinogenicity  
No information available
- 11.7 Reproductive toxicity  
No information available
- 11.8 STOT—single exposure  
No information available
- 11.9 STOT—repeated exposure  
No information available
- 11.10 Aspiration hazard  
No information available

## ***12.ECOLOGICAL INFORMATION***

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- 12.1 Toxicity  
No information available
- 12.2 Persistence and degradability  
No information available
- 12.3 Bioaccumulative potential  
No information available
- 12.4 Mobility in soil  
No information available
- 12.5 Other adverse effects  
No information

## ***13.DISPOSAL CONSIDERATIONS***

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- 13.1 Waste treatment methods  
Product/ Packaging disposal In disposal, follow relevant regulations and standards of municipalities.  
If industrial waste disposer permitted by governors or regional public organization handle disposition, commit it to them.  
If you commit a disposal of waste, notify sufficiently disposer of risk and harmfulness beforehand.  
Clean and recycle containers or dispose them properly based on relative regulations and standards of municipalities.  
When empty containers are disposed, its content must be removed

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Waste treatment options completely.  
Dispose of waste according to applicable local, state, federal laws and regulations.

Sewage disposal options Do not discharge to a water source.

Other disposal recommendations No information

13.2 Additional information  
No information

## 14. TRANSPORT INFORMATION

Road/Rail(ADR/RID) Not subject to ADR/RID.  
Sea transport (IMDG) Not subject to IMDG code.  
Air transport (IATA) Not Subject to IATA regulations.

## 15. REGULATORY INFORMATION

This MSDS is according to Globally Harmonized System of Classification and Labeling of Chemicals (GHS).  
Use in accordance with local/regional/national/international regulations.

## 16. OTHER INFORMATION

16.1 Indication of changes and preparation date

Preparation date 12th May, 2011  
Revised 12th May, 2011

16.2 Abbreviations and acronyms

ACGIH American Conference of Governmental Industrial Hygienists  
ATE Acute Toxicity Estimate  
CAS No. Chemical Abstract Service number  
EC No. EINECS and ELINCS Number  
EINECS European Inventory of Existing Commercial Substances  
ELINCS European List of notified Chemical Substances  
GHS Globally Harmonized System  
LC50 Lethal concentration, 50%  
LD50 Median Lethal Dose  
MSDS Material Safety Data Sheet  
MITI No. Ministry of International Trade and Industry Number  
NITE National Institute of Technology and Evaluation  
OEL Occupational Exposure Limit  
STOT Specific Target Organ Toxicity  
(STOT) RE Repeated Exposure  
(STOT) SE Single Exposure  
TWA Time Weighted Average

16.3 Key literature references and sources for data

The result of classification of substance by NITE Japan. (<http://www.safe.nite.go.jp/ghs/list.html>)

16.4 Handling of information given in this MSDS

Information given in this MSDS may be insufficient for not all records and references were investigated. Its

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content can be changed due to release of new data and correction of conventional theories. Therefore, when you use this MSDS for an important decision, it is recommended to check its content by running tests or to study its references carefully. We also do not guarantee the number about the content, physical or chemical properties. Notes are applicable to normal handling and care must be taken in case of special handling.