

## Safety Data Sheet

acc. to ISO 11014

Printing date 06/12/2013

Version number 4

Reviewed on 06/12/2013

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

- **Product identifier**
- **Trade name:** **Multilink Automix (Catalyst)**
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation**  
Self-curing resin-based dental luting material with light-curing option
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Ivoclar Vivadent Inc.  
175 Pineview Drive, Amherst, N.Y. 14228  
USA  
Tel. +1 800 533 6825  
Fax +1 716 691 2285  
  
Ivoclar Vivadent Inc.  
1-6600 Dixie Road  
Mississauga, Ontario  
L5T 2Y2  
Canada  
Phone: +1 905 670 8499  
Fax: +1 905 670 3102
- **Information department:** Quality Assurance / Regulatory Affairs
- **Emergency telephone number:**  
24 Hour Emergency Assistance:  
Emergency-Call USA - Infotrac: 1-800-535-5053  
Emergency-Call Canada - Canutec: 1-613-996-6666  
  
General MSDS Assistance:  
US: 1-800-533-6825  
Canada: 1-800-263-8182

### 2 Hazards identification

- **Classification of the substance or mixture**  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
Irritant  
May cause sensitisation by skin contact.
- **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**
- **Labelling according to EU guidelines:**  
Medical devices as defined in Directive 93/42/EEC and which are invasive or used in direct physical contact with the human body, are exempted from the provisions of Dangerous Substance Directive 1999/45/EC usually if they are in the finished state and intended for the final user.

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Trade name: **Multilink Automix (Catalyst)**

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· **Code letter and hazard designation of product:**



Irritant

· **Hazard-determining components of labelling:**

urethane dimethacrylate  
2-hydroxyethyl methacrylate  
dibenzoyl peroxide

· **Risk phrases:**

May cause sensitisation by skin contact.

· **Safety phrases:**

Do not breathe vapour.  
Avoid contact with skin.  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
After contact with skin, wash immediately with plenty of water  
Wear suitable gloves.  
This material and its container must be disposed of as hazardous waste.

· **Additional information:** Void

· **Hazard description:**

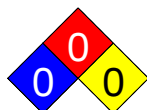
· **WHMIS-symbols:**

D2B - Toxic material causing other toxic effects



· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

## 3 Composition/information on ingredients

· **Chemical characterization:** Mixtures

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

|            |                             |        |
|------------|-----------------------------|--------|
| 72869-86-4 | urethane dimethacrylate     | 3-<10% |
| 868-77-9   | 2-hydroxyethyl methacrylate | 3-<10% |

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94-36-0 dibenzoyl peroxide

1-&lt;2.5%

## 4 First aid measures

- **Description of first aid measures**
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Rinse with water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
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 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **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

- **Handling:**
- **Precautions for safe handling**  
Only adequately trained personnel should handle this product.  
For use in dentistry only.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.

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- **Further information about storage conditions:**  
Protect from exposure to the light.  
Protect from heat and direct sunlight.  
Keep receptacle tightly sealed.
- **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:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Usual hygienic measures for dental practice.  
Wash hands before breaks and at the end of work.  
Keep away from foodstuffs, beverages and feed.  
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
After use of gloves apply skin-cleaning agents and skin cosmetics.

- **Material of gloves**  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
- **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

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

|        |                                    |
|--------|------------------------------------|
| Form:  | Pasty                              |
| Color: | According to product specification |
- **Odor:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

|                              |               |
|------------------------------|---------------|
| Melting point/Melting range: | Undetermined. |
|------------------------------|---------------|

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|                                                   |                                               |
|---------------------------------------------------|-----------------------------------------------|
| <b>Boiling point/Boiling range:</b>               | Undetermined.                                 |
| · <b>Flash point:</b>                             | Not applicable.                               |
| · <b>Flammability (solid, gaseous):</b>           | Not applicable.                               |
| · <b>Auto igniting:</b>                           | Product is not selfigniting.                  |
| · <b>Danger of explosion:</b>                     | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                        |                                               |
| <b>Lower:</b>                                     | Not determined.                               |
| <b>Upper:</b>                                     | Not determined.                               |
| · <b>Vapor pressure:</b>                          | Not determined.                               |
| · <b>Density at 20 °C:</b>                        | 2.05 g/cm <sup>3</sup>                        |
| · <b>Relative density</b>                         | Not determined.                               |
| · <b>Vapour density</b>                           | Not determined.                               |
| · <b>Evaporation rate</b>                         | Not determined.                               |
| · <b>Solubility in / Miscibility with Water:</b>  | Nearly insoluble.                             |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                               |
| · <b>Viscosity:</b>                               |                                               |
| <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** Stable under normal handling and storage conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**  
Protect from exposure to the light.  
Keep away from heat and direct sunlight.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** None under normal conditions of storage and use.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

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· **Carcinogenic categories**

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

|           |                                      |   |
|-----------|--------------------------------------|---|
| 7631-86-9 | silicon dioxide, chemically prepared | 3 |
| 94-36-0   | dibenzoyl peroxide                   | 3 |

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

## 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:**  
Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- |                                     |      |
|-------------------------------------|------|
| · <b>UN-Number</b>                  |      |
| · <b>DOT, TDG, ADN, IMDG, IATA</b>  | Void |
| · <b>UN proper shipping name</b>    |      |
| · <b>DOT, TDG, ADN, IMDG, IATA</b>  | Void |
| · <b>Transport hazard class(es)</b> |      |
| · <b>DOT, TDG, ADN, IMDG, IATA</b>  |      |
| · <b>Class</b>                      | Void |
| · <b>Packing group</b>              |      |
| · <b>DOT, TDG, IMDG, IATA</b>       | Void |

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- |                                                                                  |                 |
|----------------------------------------------------------------------------------|-----------------|
| · <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. |
| · <b>UN "Model Regulation":</b>                                                  | -               |

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

|                                                        |
|--------------------------------------------------------|
| · <b>Section 355 (extremely hazardous substances):</b> |
|--------------------------------------------------------|

|                                    |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

|                                                          |
|----------------------------------------------------------|
| · <b>Section 313 (Specific toxic chemical listings):</b> |
|----------------------------------------------------------|

|         |                    |
|---------|--------------------|
| 94-36-0 | dibenzoyl peroxide |
|---------|--------------------|

|                                               |
|-----------------------------------------------|
| · <b>TSCA (Toxic Substances Control Act):</b> |
|-----------------------------------------------|

|                             |
|-----------------------------|
| All ingredients are listed. |
|-----------------------------|

|                         |
|-------------------------|
| · <b>Proposition 65</b> |
|-------------------------|

|                                           |
|-------------------------------------------|
| · <b>Chemicals known to cause cancer:</b> |
|-------------------------------------------|

|                                    |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

|                                                                      |
|----------------------------------------------------------------------|
| · <b>Chemicals known to cause reproductive toxicity for females:</b> |
|----------------------------------------------------------------------|

|                                    |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

|                                                                    |
|--------------------------------------------------------------------|
| · <b>Chemicals known to cause reproductive toxicity for males:</b> |
|--------------------------------------------------------------------|

|                                    |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

|                                                           |
|-----------------------------------------------------------|
| · <b>Chemicals known to cause developmental toxicity:</b> |
|-----------------------------------------------------------|

|                                    |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

|                                  |
|----------------------------------|
| · <b>Carcinogenic categories</b> |
|----------------------------------|

|                                                |
|------------------------------------------------|
| · <b>EPA (Environmental Protection Agency)</b> |
|------------------------------------------------|

|                                    |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

|                                                           |
|-----------------------------------------------------------|
| · <b>TLV (Threshold Limit Value established by ACGIH)</b> |
|-----------------------------------------------------------|

|            |                       |    |
|------------|-----------------------|----|
| 13760-80-0 | ytterbium trifluoride | A4 |
|------------|-----------------------|----|

|         |                    |    |
|---------|--------------------|----|
| 94-36-0 | dibenzoyl peroxide | A4 |
|---------|--------------------|----|

|                                                                           |
|---------------------------------------------------------------------------|
| · <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b> |
|---------------------------------------------------------------------------|

|                                    |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

|                                                                    |
|--------------------------------------------------------------------|
| · <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b> |
|--------------------------------------------------------------------|

|                                    |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

|                                       |
|---------------------------------------|
| · <b>Canadian substance listings:</b> |
|---------------------------------------|

|                                                  |
|--------------------------------------------------|
| · <b>Canadian Domestic Substances List (DSL)</b> |
|--------------------------------------------------|

|            |       |
|------------|-------|
| 65997-17-3 | glass |
|------------|-------|

|            |                                        |
|------------|----------------------------------------|
| 41637-38-1 | ethoxylated bisphenol A dimethacrylate |
|------------|----------------------------------------|

|          |                             |
|----------|-----------------------------|
| 868-77-9 | 2-hydroxyethyl methacrylate |
|----------|-----------------------------|

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|             |                                      |
|-------------|--------------------------------------|
| 7631-86-9   | silicon dioxide, chemically prepared |
| 94-36-0     | dibenzoyl peroxide                   |
| 112945-52-5 | Highly Dispersed Silica, silanized   |
| 1314-23-4   | zirconium dioxide                    |
| 128-37-0    | 2,6-di-tert-butyl-p-cresol           |

• **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

• **Canadian Ingredient Disclosure list (limit 1%)**

|           |                                      |
|-----------|--------------------------------------|
| 868-77-9  | 2-hydroxyethyl methacrylate          |
| 7631-86-9 | silicon dioxide, chemically prepared |
| 94-36-0   | dibenzoyl peroxide                   |

• **Product related hazard informations:**

Medical devices as defined in Directive 93/42/EEC and which are invasive or used in direct physical contact with the human body, are exempted from the provisions of Dangerous Substance Directive 1999/45/EC usually if they are in the finished state and intended for the final user.

• **Hazard symbols:**



Irritant

• **Hazard-determining components of labelling:**

urethane dimethacrylate  
2-hydroxyethyl methacrylate  
dibenzoyl peroxide

• **Risk phrases:**

May cause sensitisation by skin contact.

• **Safety phrases:**

Do not breathe vapour.  
Avoid contact with skin.  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
After contact with skin, wash immediately with plenty of water  
Wear suitable gloves.  
This material and its container must be disposed of as hazardous waste.

• **National regulations:**

• **Other regulations, limitations and prohibitive regulations**

The product is a medical device according to the EC-directive 93/42/EEC.

• **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.

• **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
WHMIS: Workplace Hazardous Materials Information System (Canada)