



**1 Identification**

- **Product identifier**
- **Trade name:** SURFACE COAT
- **Article number:** US118
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Dental material for glazing and hardening
- **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
- **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**
-  GHS02 Flame  
Flam. Liq. 2 H225 Highly flammable liquid and vapor.
-  GHS07  
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS02, GHS07
- **Signal word** Danger
- **Hazard-determining components of labeling:**  
methyl methacrylate
- **Hazard statements**  
H225 Highly flammable liquid and vapor.  
H317 May cause an allergic skin reaction.
- **Precautionary statements**  
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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- P321 Specific treatment (see on this label).
- P363 Wash contaminated clothing before reuse.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **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 substances listed below with nonhazardous additions.

· **Dangerous components:**

|         |  |       |
|---------|--|-------|
| 80-62-6 | methyl methacrylate  | < 10% |
|         | ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 |       |

- **Other ingredients:**
- Aliphatic hexaacrylate
- Initiators

**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:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:**  
Do not induce vomiting; immediately call for medical help.  
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:** CO2, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **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**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **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:**  
Store away from oxidizing agents.  
Store away from reducing agents.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.
- **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:**

**80-62-6 methyl methacrylate**

|     |  |
|-----|--|
| PEL | 410 mg/m <sup>3</sup> , 100 ppm  |
| REL | 410 mg/m <sup>3</sup> , 100 ppm  |
| TLV | Short-term value: 410 mg/m <sup>3</sup> , 100 ppm<br>Long-term value: 205 mg/m <sup>3</sup> , 50 ppm |
| SEN |  |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.
- **Breathing equipment:**  
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.

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· **Protection of hands:**



Protective gloves

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

· **Eye protection:**



Tightly sealed goggles

**9 Physical and chemical properties**

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

· **General Information**

· **Appearance:**

|                 |                            |
|-----------------|----------------------------|
| · <b>Form:</b>  | Liquid                     |
| · <b>Color:</b> | Colorless                  |
| · <b>Odor:</b>  | Slightly methacrylate odor |

· **pH-value:** Not determined.

· **Change in condition**

|                                       |                              |
|---------------------------------------|------------------------------|
| · <b>Melting point/Melting range:</b> | -48 °C (methyl methacrylate) |
| · <b>Boiling point/Boiling range:</b> | 101 °C (methyl methacrylate) |

· **Flash point:** 10 °C (methyl methacrylate)

· **Ignition temperature:** 430.0 °C (methyl methacrylate)

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

|                 |                                  |
|-----------------|----------------------------------|
| · <b>Lower:</b> | 2.1 Vol % (methyl methacrylate)  |
| · <b>Upper:</b> | 12.5 Vol % (methyl methacrylate) |

· **Oxidizing properties** Not determined

· **Vapor pressure:** 47.0 hPa (20 °C, methyl methacrylate)

|                           |                       |
|---------------------------|-----------------------|
| · <b>Density:</b>         | 1.2 g/cm <sup>3</sup> |
| · <b>Relative density</b> | Not determined.       |
| · <b>Vapor density</b>    | Not determined.       |

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|   |  |
|---|--|
| · <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>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:** Carbon monoxide and carbon dioxide

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**

|   |      |  |
|---|------|--|
| · <b>LD/LC50 values that are relevant for classification:</b> |      |  |
| <b>80-62-6 methyl methacrylate</b>                            |      |  |
| Oral  | LD50 | 3625 mg/kg (mouse)<br>7872 mg/kg (rat) |
| Dermal  | LD50 | 5945 mg/kg (mouse)                     |

- **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

- **Carcinogenic categories**

|   |                     |   |
|---|---------------------|---|
| · <b>IARC (International Agency for Research on Cancer)</b> |                     |   |
| 80-62-6   | methyl methacrylate | 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.

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- **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:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

|                                       |   |
|---------------------------------------|---|
| · <b>UN-Number</b>                    |   |
| · <b>DOT</b>                          | UN1247  |
| · <b>ADR, IMDG, IATA</b>              | 1247  |
| · <b>UN proper shipping name</b>      |   |
| · <b>ADR</b>                          | 1247 METHYL METHACRYLATE MONOMER, STABILIZED, solution                              |
| · <b>IMDG, IATA</b>                   | METHYL METHACRYLATE MONOMER, STABILIZED, solution                                   |
| · <b>Transport hazard class(es)</b>   |   |
| · <b>DOT</b>                          |   |
|                                       |  |
| · <b>Class</b>                        | 3 Flammable liquids   |
| · <b>Label</b>                        | 3   |
| · <b>ADR, IMDG, IATA</b>              |   |
|                                       |  |
| · <b>Class</b>                        | 3 Flammable liquids   |
| · <b>Label</b>                        | 3   |
| · <b>Packing group</b>                |   |
| · <b>DOT, ADR, IMDG, IATA</b>         | II  |
| · <b>Environmental hazards:</b>       |   |
| · <b>Marine pollutant:</b>            | No  |
| · <b>Special precautions for user</b> | Warning: Flammable liquids  |
| · <b>Danger code (Kemler):</b>        | 339   |

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|  |  |
|--|--|
| · <b>EMS Number:</b>   | F-E,S-D  |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.  |
| · <b>UN "Model Regulation":</b>  | UN1247; METHYL METHACRYLATE MONOMER, STABILIZED, solution; 3; II |

**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 ingredient is listed.                      |

|  |
|--|
| · <b>Section 313 (Specific toxic chemical listings):</b> |
| All ingredients are listed.                              |

|   |
|---|
| · <b>TSCA (Toxic Substances Control Act):</b> |
| All ingredients are listed.                   |

· **Proposition 65**

|   |
|---|
| · <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.                        |

· **Carcinogeny categories**

|  |
|--|
| · <b>EPA (Environmental Protection Agency)</b> |
| 80-62-6   methyl methacrylate   E;NL           |

|   |
|---|
| · <b>TLV (Threshold Limit Value established by ACGIH)</b> |
| 80-62-6   methyl methacrylate   A4                        |

|   |
|---|
| · <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b> |
| None of the ingredients is listed.  |

· **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**

- H225 Highly flammable liquid and vapor.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H335 May cause respiratory irritation.

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· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Abbreviations and acronyms:**

- Flam. Liq. 2: Flammable liquids – Category 2
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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