

kuraray

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 27.08.2009

Revision: 24.08.2009

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**

- **Trade name:** PANAVIA F 2.0 ; OXYGUARD II

- **Article number:** 071

- **Application of the substance / the preparation** Dental material for curing promotion and surface protection

- **Manufacturer:**

Kuraray Europe GmbH
Building F821, Hoechst Industrial Park
65926 Frankfurt am Main
Germany

Tel: +49 (0)69 305 35 840

Fax: +49 (0)69 305 35 640

E-mail: dental@kuraray.de

- **Supplier:**

J & S Davis
Unit 6, Argyle Way Trading Estate,
Fulton Close, Stevenage,
Hertfordshire, SG 1 2AF,
Great Britain

Tel: +44- (0)1438 735800

Fax: +44- (0)1438 735801

E-mail: jsdsales@js-davis.co.uk

- **Further information obtainable from:** Manufacturer or Supplier

- **Information in case of emergency:**

National Poisons information Service (London Centre)

Guy's & St. Thomas Hospital Trust

Medical Toxicology Unit

Avonley Road

LONDON

SE14 5ER

Emergency telephone: (local) 0870 600 6266 or +44 20 7771 5394

Administrative telephone: +44 20 7 771 53 10

Facsimile number: +44 20 7 771 53 09

2 Hazards identification

- **Hazard description:** Not applicable.

- **Information concerning particular hazards for human and environment:**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **GHS label elements**

Safety data sheet available on request.

3 Composition/information on ingredients

- **Chemical characterization**

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

- **Dangerous components:**

CAS: 56-81-5 EINECS: 200-289-5	glycerol	50-70%
CAS: 25322-68-3 NLP: 500-038-2	Polyethylene glycol	20-40%

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Trade name: PANAVIA F 2.0 ; OXYGUARD II

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Other ingredients:

Catalysts
Accelerators
Dyes
Others

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 Fire-fighting measures

- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Additional information:** No dangerous substances are released.

7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a refrigerator (2-8°C).
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

8 Exposure controls/personal protection

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

Ingredients with limit values that require monitoring at the workplace:

56-81-5 glycerol

WEL Long-term value: 10 mg/m³

- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.

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• **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**

Form:	Gel
Colour:	Green
Odour:	Odourless

• **Change in condition**

Melting point/Melting range:	18.2 °C (glycerol)
Boiling point/Boiling range:	290 °C (glycerol)

• Flash point:	160 °C (glycerol)
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• Ignition temperature:	400.0 °C (glycerol)
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• Danger of explosion:	Product does not present an explosion hazard.
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• **Explosion limits:**

Lower:	0.9 Vol % (glycerol)
Upper:	Not applicable

• Vapour pressure:	0.1 hPa (20°C, glycerol)
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• Density:	Not determined.
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• Vapour density	Not applicable
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• Solubility in / Miscibility with water:	Fully miscible.
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• pH-value:	Not applicable
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• Segregation coefficient (n-octanol/water):	Not applicable
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10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** Carbon monoxide and carbon dioxide

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Trade name: PANAVIA F 2.0 ; OXYGUARD II

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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 the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- **General notes:**
Water hazard class 1 (German Regulation) (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

- **Product:**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **UN "Model Regulation":** -

15 Regulatory information

- **Labelling according to EU guidelines:**
Observe the general safety regulations when handling chemicals.
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- **Special labelling of certain preparations:**
Safety data sheet available for professional user on request.

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Trade name: PANAIA F 2.0 ; OXYGUARD II

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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**• Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** **PANAVIA F 2.0 ; ED PRIMER II Liquid B**
- **Article number:** 070-B
- **Application of the substance / the preparation** Dental material for tooth surface conditioning
- **Manufacturer:**
Kuraray Europe GmbH
Building F821, Hoechst Industrial Park
65926 Frankfurt am Main
Germany
Tel: +49 (0)69 305 35 840
Fax: +49 (0)69 305 35 640
E-mail: dental@kuraray.de
- **Supplier:**
J & S Davis
Unit 6, Argyle Way Trading Estate,
Fulton Close, Stevenage,
Hertfordshire, SG 1 2AF,
Great Britain
Tel: +44- (0)1438 735800
Fax: +44- (0)1438 735801
E-mail: jsdsales@js-davis.co.uk
- **Further information obtainable from:** Manufacturer or Supplier
- **Information in case of emergency:**
National Poisons information Service (London Centre)
Guy's & St. Thomas Hospital Trust
Medical Toxicology Unit
Avonley Road
LONDON
SE14 5ER
Emergency telephone: (local) 0870 600 6266 or +44 20 7771 5394
Administrative telephone: +44 20 7 771 53 10
Facsimile number: +44 20 7 771 53 09

2 Hazards identification

- **Hazard description:** Not applicable.
- **Information concerning particular hazards for human and environment:**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **GHS label elements** Void

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **Other ingredients:**
N-Methacryloyl-5-aminosalicylic acid
Water
Catalysts

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Trade name: PANAIA F 2.0 ; ED PRIMER II Liquid B

Accelerators

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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 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Dilute with plenty of water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Additional information:** No dangerous substances are released.

7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a refrigerator (2-8°C).
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients 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 valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **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

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Trade name: PANAVIA F 2.0 ; ED PRIMER II Liquid B

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• **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**

Form:	Liquid
Colour:	Transparent
Odour:	Odourless

• **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

• **Flash point:** Not applicable.

• **Ignition temperature:** Not applicable

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

• **Explosion limits:**

Lower:	Not applicable
Upper:	Not applicable

• **Vapour pressure:** Not applicable

• **Density:** 1.0 g/cm³

• **Vapour density:** Not applicable

• **Solubility in / Miscibility with water:**

Fully miscible.

• **pH-value:** Not applicable

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

10 Stability and reactivity

• **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

• **Dangerous reactions** No dangerous reactions known.

• **Dangerous decomposition products:** Carbon monoxide and carbon dioxide

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.

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Trade name: PANAIA F 2.0 ; ED PRIMER II Liquid B

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• **Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

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

12 Ecological information

- **General notes:** Generally not hazardous for water

13 Disposal considerations

- **Product:**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- **Land transport ADR/RID (cross-border)**

• **ADR/RID class:** -

- **Maritime transport IMDG:**

• **IMDG Class:** -

• **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**

• **ICAO/IATA Class:** -

• **UN "Model Regulation":** -

15 Regulatory information

- **Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

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:** 4

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

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GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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1 Identification of the substance/preparation and of the company/undertaking

• **Product details**

• **Trade name:** **PANAVIA F 2.0 ; ED PRIMER II Liquid A**

• **Article number:** 070-A

• **Application of the substance / the preparation** Dental material for tooth surface conditioning

• **Manufacturer:**

Kuraray Europe GmbH
Building F821, Hoechst Industrial Park
65926 Frankfurt am Main
Germany

Tel: +49 (0)69 305 35 840

Fax: +49 (0)69 305 35 640

E-mail: dental@kuraray.de

• **Supplier:**

J & S Davis

Unit 6, Argyle Way Trading Estate,

Fulton Close, Stevenage,

Hertfordshire, SG 1 2AF,

Great Britain

Tel: +44- (0)1438 735800

Fax: +44- (0)1438 735801

E-mail: jsdsales@js-davis.co.uk

• **Further information obtainable from:** Manufacturer or Supplier

• **Information in case of emergency:**

National Poisons information Service (London Centre)

Guy's & St. Thomas Hospital Trust

Medical Toxicology Unit

Avonley Road

LONDON

SE14 5ER

Emergency telephone: (local) 0870 600 6266 or +44 20 7771 5394

Administrative telephone: +44 20 7 771 53 10

Facsimile number: +44 20 7 771 53 09

2 Hazards identification

• **Hazard description:**



Xi Irritant

• **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 36/38 Irritating to eyes and skin.

R 43 May cause sensitisation by skin contact.

• **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

• **GHS label elements**



Warning

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H317 - May cause an allergic skin reaction.

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Trade name: PANA VIA F 2.0 ; ED PRIMER II Liquid A

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Prevention:

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P321 Specific treatment (see on this label).
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P362 Take off contaminated clothing and wash before reuse.
- P363 Wash contaminated clothing before reuse.

Disposal:

- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization

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

Dangerous components:

CAS: 868-77-9	2-hydroxyethyl methacrylate	Xi; R 36/38-43	30-50%
EINECS: 212-782-2		Warning: ⚠ 3.2/2, 3.3/2, 3.4.S/1	

Other ingredients:

- 10-Methacryloyloxydecyl dihydrogen phosphate
- N-Methacryloyl-5-aminosalicylic acid
- Water
- Accelerators

4 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. If symptoms persist, consult a doctor.

After swallowing:

- Do not induce vomiting; call for medical help immediately.
- If symptoms persist consult doctor.

5 Fire-fighting measures

Suitable extinguishing agents:

- CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Protective equipment:

- Wear self-contained respiratory protective device.
- Wear fully protective suit.

6 Accidental release measures

Person-related safety precautions: Not required.

Measures for environmental protection:

- Dilute with plenty of water.

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Trade name: PANAVIA F 2.0 ; ED PRIMER II Liquid A

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Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

7 Handling and storage

Handling:

Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about fire - and explosion protection: No special measures required.

Storage:

Requirements to be met by storerooms and receptacles: Store in a refrigerator (2-8°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 container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

8 Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

Ingredients 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 valid during the making were used as basis.

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.

Avoid contact with the eyes and skin.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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

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Trade name: PANA VIA F 2.0 ; ED PRIMER II Liquid A

· **Eye protection:** Tightly sealed goggles

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9 Physical and chemical properties

· General Information

Form:	Liquid
Colour:	Transparent
Odour:	Odourless

· Change in condition

Melting point/Melting range:	-12 °C (2-hydroxyethyl methacrylate)
Boiling point/Boiling range:	205 °C (2-hydroxyethyl methacrylate)

· **Flash point:** 97 °C (2-hydroxyethyl methacrylate)

· **Ignition temperature:** Not applicable

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

· Explosion limits:

Lower:	Not applicable
Upper:	Not applicable

· **Vapour pressure:** Not applicable

· **Density:** 1.1 g/cm³

· **Vapour density:** Not applicable

· **Solubility in / Miscibility with water:**

Partly miscible.

· **pH-value:** Not applicable

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

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

· Acute toxicity:

· LD/LC50 values relevant for classification:

868-77-9 2-hydroxyethyl methacrylate

Oral	LD50	4680 mg/kg (guinea pig)
		3275 mg/kg (mouse)
		5050 mg/kg (rat)

· Primary irritant effect:

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

· Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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Trade name: PANA VIA F 2.0 ; ED PRIMER II Liquid A

- Irritant
- Sensitisation May cause sensitisation by skin contact.

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12 Ecological information

- General notes:**
Water hazard class 1 (German Regulation) (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

- Product:**
- Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:**
- Recommendation:** Disposal must be made according to official regulations.
- Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- Land transport ADR/RID (cross-border)**
- ADR/RID class:** -
- Maritime transport IMDG:**
- IMDG Class:** -
- Marine pollutant:** No
- Air transport ICAO-TI and IATA-DGR:**
- ICAO/IATA Class:** -
- UN "Model Regulation":** -

15 Regulatory information

- Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- Code letter and hazard designation of product:**
 Xi Irritant
- Hazard-determining components of labelling:**
2-hydroxyethyl methacrylate
- Risk phrases:**
36/38 Irritating to eyes and skin.
43 May cause sensitisation by skin contact.
- Safety phrases:**
24 Avoid contact with skin.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of soap and water.
37 Wear suitable gloves.

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Trade name: PANAVIA F 2.0 ; ED PRIMER II Liquid A

60 This material and its container must be disposed of as hazardous waste.

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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: 4**· Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

GB

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 27.08.2009

Revision: 24.08.2009

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** PANAVIA F 2.0 ; PASTE A
- **Article number:** 089-PA
- **Application of the substance / the preparation** Resin-based dental adhesive cement
- **Manufacturer:**
Kuraray Europe GmbH
Building F821, Hoechst Industrial Park
65926 Frankfurt am Main
Germany
Tel: +49 (0)69 305 35 840
Fax: +49 (0)69 305 35 640
E-mail: dental@kuraray.de
- **Supplier:**
J & S Davis
Unit 6, Argyle Way Trading Estate,
Fulton Close, Stevenage,
Hertfordshire, SG 1 2AF,
Great Britain
Tel: +44- (0)1438 735800
Fax: +44- (0)1438 735801
E-mail: jsdsales@js-davis.co.uk
- **Further information obtainable from:** Manufacturer or Supplier
- **Information in case of emergency:**
National Poisons information Service (London Centre)
Guy's & St. Thomas Hospital Trust
Medical Toxicology Unit
Avonley Road
LONDON
SE14 5ER
Emergency telephone: (local) 0870 600 6266 or +44 20 7771 5394
Administrative telephone: +44 20 7 771 53 10
Facsimile number: +44 20 7 771 53 09

2 Hazards identification

- **Hazard description:** Not applicable.
- **Information concerning particular hazards for human and environment:**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **GHS label elements** Void

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **Other ingredients:**
10-Methacryloyloxydecyl dihydrogen phosphate
Hydrophobic aromatic dimethacrylate
Hydrophobic aliphatic dimethacrylate
Hydrophilic aliphatic dimethacrylate

(Contd. on page 2)

GB

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Trade name: PANA VIA F 2.0 ; PASTE A

(Contd. of page 1)

Silanated silica filler
 Silanated colloidal silica
 dl-Camphorquinone
 Catalysts
 Initiators
 Others

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 Fire-fighting measures

- **Suitable extinguishing agents:** CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** No special measures required.
- **Measures for cleaning/collecting:** Pick up mechanically.
- **Additional information:** No dangerous substances are released.

7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a refrigerator (2-8°C).
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients 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 valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Protection of hands:**
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Trade name: PANA VIA F 2.0 ; PASTE A

(Contd. of page 2)

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:** Not required.

9 Physical and chemical properties

· **General Information**

Form:	Pasty
Colour:	Coloured
Odour:	Odourless

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

· Flash point:	Not applicable.
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· Ignition temperature:	Not applicable
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· Danger of explosion:	Product does not present an explosion hazard.
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· **Explosion limits:**

Lower:	Not applicable
Upper:	Not applicable

· Vapour pressure:	Not applicable
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· Density:	2.2 g/cm ³
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· Vapour density	Not applicable
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· **Solubility in / Miscibility with water:**

Insoluble.

· pH-value:	Not applicable
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· Segregation coefficient (n-octanol/water):	Not applicable
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10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Dangerous reactions** No dangerous reactions known.

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

11 Toxicological information

· **Acute toxicity:**

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

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Trade name: PANA VIA F 2.0 ; PASTE A

(Contd. of page 3)

- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

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

12 Ecological information

- **General notes:** Generally not hazardous for water

13 Disposal considerations

- **Product:**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **UN "Model Regulation":** -

15 Regulatory information

- **Labelling according to EU guidelines:**
Observe the general safety regulations when handling chemicals.
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57**

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
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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kuraray

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 27.08.2009

Revision: 24.08.2009

Trade name: PANA VIA F 2.0 ; PASTE A

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IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GB

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**

- **Trade name:** PANAVIA F 2.0 ; PASTE B (TC, White, Light, Opaque)

- **Article number:** 089-PB

- **Application of the substance / the preparation** Resin-based dental adhesive cement

- **Manufacturer:**

Kuraray Europe GmbH
Building F821, Hoechst Industrial Park
65926 Frankfurt am Main
Germany
Tel: +49 (0)69 305 35 840
Fax: +49 (0)69 305 35 640
E-mail: dental@kuraray.de

- **Supplier:**

J & S Davis
Unit 6, Argyle Way Trading Estate,
Fulton Close, Stevenage,
Hertfordshire, SG 1 2AF,
Great Britain
Tel: +44- (0)1438 735800
Fax: +44- (0)1438 735801
E-mail: jsdsales@js-davis.co.uk

- **Further information obtainable from:** Manufacturer or Supplier

- **Information in case of emergency:**

National Poisons information Service (London Centre)
Guy's & St. Thomas Hospital Trust
Medical Toxicology Unit
Avonley Road
LONDON
SE14 5ER
Emergency telephone: (local) 0870 600 6266 or +44 20 7771 5394
Administrative telephone: +44 20 7 771 53 10
Facsimile number: +44 20 7 771 53 09

2 Hazards identification

- **Hazard description:**



Xn Harmful

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 22 Harmful if swallowed.

R 31 Contact with acids liberates toxic gas.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **GHS label elements**



Warning

H302+EUH031 - Harmful if swallowed. Contact with acids liberates toxic gas.

- **Prevention:**

P264 Wash thoroughly after handling.

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Safety Data Sheet

according to 1907/2006/EC, Article 31

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Trade name: PANA VIA F 2.0 ; PASTE B (TC, White, Light, Opaque)

(Contd. of page 1)

P270 Do not eat, drink or smoke when using this product.

Response:

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth.

Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

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

Dangerous components:

CAS: 7681-49-4	sodium fluoride	T, Xi; R 25-32-36/38	< 10%
EINECS: 231-667-8		Danger: 3.1.O/3, 3.2/2, 3.3/2	

Other ingredients:

Hydrophobic aromatic dimethacrylate
Hydrophobic aliphatic dimethacrylate
Hydrophilic aliphatic dimethacrylate
Silanated barium glass filler
Catalysts
Accelerators
Pigments
Others

4 First aid measures

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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: Call for a doctor immediately.

5 Fire-fighting measures

Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Protective equipment:

Mouth respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

Person-related safety precautions: Mount respiratory protective device.

Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting: Dispose contaminated material as waste according to item 13.

7 Handling and storage

Handling:
Information for safe handling: Prevent formation of dust.

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Trade name: PANAVIA F 2.0 ; PASTE B (TC, White, Light, Opaque)

(Contd. of page 2)

- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a refrigerator (2-8°C).
- **Information about storage in one common storage facility:**
 - Do not store together with acids.
 - Store away from oxidizing agents.
 - Store away from reducing agents.
- **Further information about storage conditions:**
 - Keep container tightly sealed.
 - Store in cool, dry conditions in well sealed receptacles.
 - Protect from heat and direct sunlight.

8 Exposure controls/personal protection

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

- **Ingredients with limit values that require monitoring at the workplace:**

7681-49-4 sodium fluoride

WEL	Long-term value: 2.5 mg/m ³ as F
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- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Respiratory protection:**
 - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **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:** Not required.

9 Physical and chemical properties

- **General Information**

Form:	Pasty
Colour:	Coloured
Odour:	Odourless

- **Change in condition**

Melting point/Melting range:	1012 °C (sodium fluoride)
Boiling point/Boiling range:	1704 °C (sodium fluoride)

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Trade name: PANA VIA F 2.0 ; PASTE B (TC, White, Light, Opaque)

(Contd. of page 3)

· Flash point:	Not applicable.
· Ignition temperature:	Not applicable
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not applicable
Upper:	Not applicable
· Vapour pressure:	Not applicable
· Density:	2.0 g/cm ³
· Vapour density	Not applicable
· Solubility in / Miscibility with water:	Insoluble.
· pH-value:	Not applicable
· Segregation coefficient (n-octanol/water):	Not applicable

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

7681-49-4 sodium fluoride

Oral	LD50	44 mg/kg (mouse)
		52 mg/kg (rat)

- **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 shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful

12 Ecological information

- **General notes:**

Water hazard class 1 (German Regulation) (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.

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Safety Data Sheet

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Revision: 24.08.2009

Trade name: PANA VIA F 2.0 ; PASTE B (TC, White, Light, Opaque)

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13 Disposal considerations

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

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **UN "Model Regulation":** -

15 Regulatory information

- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:**
 Xn Harmful
- **Hazard-determining components of labelling:**
sodium fluoride
- **Risk phrases:**
22 Harmful if swallowed.
31 Contact with acids liberates toxic gas.
- **Safety phrases:**
22 Do not breathe dust.
36 Wear suitable protective clothing.
45 In case of accident or if you feel unwell, seek medical advice immediately.
60 This material and its container must be disposed of as hazardous waste.

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
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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Printing date 27.08.2009

Revision: 24.08.2009

Trade name: PANA VIA F 2.0 ; PASTE B (TC, White, Light, Opaque)

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IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

GB

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 27.08.2009

Revision: 24.08.2009

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** **ALLOY PRIMER**
- **Article number:** 054
- **Application of the substance / the preparation** Adhesive, dental metal
- **Manufacturer:**
Kuraray Europe GmbH
Building F821, Hoechst Industrial Park
65926 Frankfurt am Main
Germany
Tel: +49 (0)69 305 35 840
Fax: +49 (0)69 305 35 640
E-mail: dental@kuraray.de
- **Supplier:**
J & S Davis
Unit 6, Argyle Way Trading Estate,
Fulton Close, Stevenage,
Hertfordshire, SG 1 2AF,
Great Britain
Tel: +44- (0)1438 735800
Fax: +44- (0)1438 735801
E-mail: jsdsales@js-davis.co.uk
- **Further information obtainable from:** Manufacturer or Supplier
- **Information in case of emergency:**
National Poisons information Service (London Centre)
Guy's & St. Thomas Hospital Trust
Medical Toxicology Unit
Avonley Road
LONDON
SE14 5ER
Emergency telephone: (local) 0870 600 6266 or +44 20 7771 5394
Administrative telephone: +44 20 7 771 53 10
Facsimile number: +44 20 7 771 53 09

2 Hazards identification• **Hazard description:**

Xi Irritant
F Highly flammable

• **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 11 Highly flammable.

R 36 Irritating to eyes.

R 67 Vapours may cause drowsiness and dizziness.

• **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

• **GHS label elements**

Danger

H225 - Highly flammable liquid and vapour.

(Contd. on page 2)

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Revision: 24.08.2009

Trade name: ALLOY PRIMER

(Contd. of page 1)



Warning

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.

Storage:

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 67-64-1	acetone	Xi, F; R 11-36-66-67	>90%
EINECS: 200-662-2		Danger: 2.6/2	
		Warning: 3.3/2, 3.8/3	

Other ingredients:

6-(4-Vinylbenzyl-N-propyl)amino-1,3,5-triazine-2,4-dithione

10-Methacryloyloxydecyl dihydrogen phosphate

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. If symptoms persist, consult a doctor.

After swallowing:

Do not induce vomiting; call for medical help immediately.

If symptoms persist consult doctor.

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according to 1907/2006/EC, Article 31

Printing date 27.08.2009

Revision: 24.08.2009

Trade name: ALLOY PRIMER

(Contd. of page 2)

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **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 container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.

8 Exposure controls/personal protection

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

- **Ingredients with limit values that require monitoring at the workplace:**

67-64-1 acetone

WEL	Short-term value: 3620 mg/m ³ , 1500 ppm
	Long-term value: 1210 mg/m ³ , 500 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **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.
Avoid contact with the eyes.
- **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

(Contd. on page 4)

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Safety Data Sheet

according to 1907/2006/EC, Article 31

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Trade name: ALLOY PRIMER

(Contd. of page 3)

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: Tightly sealed goggles

9 Physical and chemical properties

General Information

Form:	Liquid
Colour:	Transparent
Odour:	Acetone-like

Change in condition

Melting point/Melting range:	94.7 °C (acetone)
Boiling point/Boiling range:	55 °C (acetone)

Flash point:	-19 °C (acetone)
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Ignition temperature:	465.0 °C (acetone)
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Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
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Explosion limits:

Lower:	2.6 Vol % (acetone)
Upper:	13.0 Vol % (acetone)

Vapour pressure:	233.0 hPa (20°C, acetone)
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Density:	0.79 g/cm ³ (acetone)
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Vapour density	2.0 g/cm ³ (acetone, air=1)
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Solubility in / Miscibility with water:

Partly miscible.

pH-value:	Not applicable
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Segregation coefficient (n-octanol/water):	-0.24 (acetone)
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10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Dangerous reactions: No dangerous reactions known.
- Dangerous decomposition products: Carbon monoxide and carbon dioxide

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11 Toxicological information

- Acute toxicity:

- LD/LC50 values relevant for classification:

67-64-1 acetone

Oral	LD50	5800 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)

- Primary irritant effect:

- on the skin: No irritant effect.

- on the eye: Irritating effect.

- Sensitization: No sensitizing effects known.

- Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

12 Ecological information

- General notes:

Water hazard class 1 (German Regulation) (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

- Product:

- Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packaging:

- Recommendation: Disposal must be made according to official regulations.

- Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

- Land transport ADR/RID (cross-border)

- ADR/RID class: 3 Flammable liquids.

- Danger code (Kemler): 33

- UN-Number: 1090

- Packaging group: II

- Hazard label: 3

- Description of goods: 1090 ACETONE, solution

- Maritime transport IMDG:

- IMDG Class: 3

- UN Number: 1090

- Label: 3

- Packaging group: II

- EMS Number: F-E,S-D

- Marine pollutant: No

- Proper shipping name: ACETONE, solution

- Air transport ICAO-TI and IATA-DGR:

- ICAO/IATA Class: 3

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- UN/ID Number: 1090
- Label 3
- Packaging group: II
- Proper shipping name: ACETONE, solution
- UN "Model Regulation": UN1090; ACETONE, solution; 3; II

15 Regulatory information

- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:**

 Xi Irritant
F Highly flammable
- **Hazard-determining components of labelling:**
acetone
- **Risk phrases:**
11 Highly flammable.
36 Irritating to eyes.
67 Vapours may cause drowsiness and dizziness.
- **Safety phrases:**
9 Keep container in a well-ventilated place.
16 Keep away from sources of ignition - No smoking.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
60 This material and its container must be disposed of as hazardous waste.

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: 4**
- **Abbreviations and acronyms:**
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent

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