

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Print date: 20.05.2015

LuxaBond-Total Etch (Pre-Bond)

Product group: Dental Curing

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**SECTION 1: Identification of the substance or mixture and of the supplier****1.1. Product identifier**

LuxaBond-Total Etch (Pre-Bond)

Product group:	Endprodukt
CAS No:	64-17-5
Index No:	603-002-00-5
EC No:	200-578-6

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.3. Details of the supplier of the safety data sheet**

Company name:	DMG Chemisch-Pharmazeutische Fabrik GmbH	
Street:	Elbgaustraße 248	
Place:	D-22547 Hamburg	
Telephone:	+49. (0) 40. 84006-0	Telefax: +49. (0) 40. 84006-222
e-mail:	info@dmg-dental.com	
Internet:	www.dmg-dental.com	

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Indications of danger: F - Highly flammable  
 R phrases:  
 Highly flammable.  
 May cause sensitisation by skin contact.

**GHS classification**

Hazard Statements:  
 Highly flammable liquid and vapour.

**2.2. Label elements**

Signal word:	Danger
Pictograms:	GHS02

**Hazard statements**

H225	Highly flammable liquid and vapour.
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**Precautionary statements**

P233	Keep container tightly closed.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P102	Keep out of reach of children.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Ethanol.

Sum formula:	C <sub>2</sub> H <sub>6</sub> O
Molecular weight:	46,07

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## Hazardous components

EC No	Classification	Signal
CAS No	Classification	
Index No	GHS classification	
REACH No		
200-578-8	Extremely flammable	+
64-17-5	F - Highly flammable R11	
603-002-00-5	Flam. Liq. 2; H225	

Full text of R and H phrases: see Section 16.

## SECTION 4: First aid measures

## 4.1. Description of first aid measures

## After inhalation

Move victim to fresh air. Put victim at rest and keep warm.

## After contact with skin

After contact with skin, wash immediately with: Water and soap. Change contaminated clothing. Rub in high-fat content cream.

## After contact with eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

## After ingestion

If swallowed, immediately drink: Water. Consult physician.

## SECTION 5: Firefighting measures

## 5.1. Extinguishing media

## Suitable extinguishing media

Atomized water. alcohol resistant foam. Carbon dioxide (CO<sub>2</sub>). Extinguishing powder. Sand.

## Extinguishing media which must not be used for safety reasons

High power water jet.

## 5.2. Special hazards arising from the substance or mixture

Concentrated vapors are heavier than air. Vapours may form explosive mixtures with air.

## 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

## 6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition - No smoking.

The following must be prevented: inhalation. skin contact. Eye contact.

## 6.2. Environmental precautions

Do not empty into drains or the aquatic environment.

## 6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

## SECTION 7: Handling and storage

## 7.1. Precautions for safe handling

## Advice on safe handling

Keep away from sources of ignition - No smoking. Provide adequate ventilation.

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Liquiflamm Ethanol (Flam. Liq. 2)

Product code: 5000-0000-0000

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**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place.  
Store only in original container.

**SECTION 8: Exposure controls/substance protection****8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

**8.2. Exposure controls****Protective and hygiene measures**

When using do not eat or drink.

**Respiratory protection**

The following must be prevented: inhalation. Exceeding critical value: Filter respirator (full mask or mouth-piece) with filter: A

**Hand protection**

Tested protective gloves are to be worn: Suitable material: NBR (Nitrile rubber).

**Eye protection**

Tightly sealed safety glasses.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: liquid  
Colour: colourless-transparent  
Odour: characteristic

**Test method**

pH-Value: neutral

**Changes in the physical state**

Melting point: ca. -115 °C

Boiling point: ca. 80 °C

Flash point: 12 °C

Lower explosion limits: 3.5 vol. %

Upper explosion limits: 15 vol. %

Ignition temperature: 425 °C

Vapour pressure: 59 hPa  
(at 20 °C)

Density (at 20 °C): ca. 0,8 g/cm<sup>3</sup>

Water solubility: complete miscible

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Viscosity / dynamic:  
(at 20 °C)

1,3 mPa·s

**SECTION 10: Stability and reactivity****10.4. Conditions to avoid**

heat.

**10.5. Incompatible materials**

Oxidizing agents. peroxides. acid. Alkali metals.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

Acute toxicity, oral LD50: (species: Rat.): &gt; 6200 mg/kg; Acute toxicity, inhalant 95.6 mg / l / 4 h

CAS No.	Chemical name	Exposure routes	Method	Dose	Species	Source
64-17-5	ethanol, ethyl alcohol					
		oral	LD50	6200 mg/kg	Rat	IUCLID
		inhalative (4 h) vapour	LC50	95,6 mg/l	Rat	RTECS

**Irritation and corrosivity**

In case of prolonged or frequently repeated skin contact: irritant.; Following eye contact: irritant.

**SECTION 12: Ecological information****12.1. Toxicity**

Acute fish toxicity (Leuciscus idus): LC50: &gt; 8140 mg / l / 48 h (Ethanol);

Acute Daphnia toxicity (Daphnia magna): EC50: 9268 - 14221 mg / l / 48 h

CAS No.	Chemical name	Aquatic toxicity	Method	Dose	h	Species	Source
64-17-5	ethanol, ethyl alcohol						
		Acute crustacea toxicity	EC50	9268 - 14221	48	Daphnia magna	IUCLID

**12.2. Persistence and degradability**

Easily biodegradable (concerning to the criteria of the OECD)

**12.3. Bioaccumulative potential****Partition coefficient n-octanol/water**

CAS No.	Chemical name	Log Pow
64-17-5	ethanol, ethyl alcohol	-0,31

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Remove according to the regulations.

**Waste disposal number of waste from residues/unused products**

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Product code: 0015-0015-0015

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180106 WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care); wastes from natal care, diagnosis, treatment or prevention of disease in humans; chemicals consisting of or containing dangerous substances  
Classified as hazardous waste.

## SECTION 14: Transport information

## Land transport (ADR/RID)

**14.1. UN number:** 1170  
**14.2. UN proper shipping name:** ETHANOL (ETHYL ALCOHOL)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3



Classification code: F1  
 Special Provisions: 144 601  
 Limited quantity: 1 L  
 Transport category: 2  
 Hazard No: 33  
 Tunnel restriction code: D/E

**Other applicable information (land transport)**  
 E2

## Marine transport (IMDG)

**14.1. UN number:** 1170  
**14.2. UN proper shipping name:** ETHANOL (ETHYL ALCOHOL)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3



Special Provisions: 144  
 Limited quantity: 3 L  
 EmS: F-E, S-D

**Other applicable information (marine transport)**  
 E2

## Air transport (ICAO)

**14.1. UN number:** 1170  
**14.2. UN proper shipping name:** ETHANOL (ETHYL ALCOHOL)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3

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**(Limited Quantity - Passenger)**

Product name: DMG-200-240

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Special Provisions: A3  
 Limited quantity Passenger: 1 L  
 IATA-packing instructions - Passenger: 353  
 IATA-max. quantity - Passenger: 5 L  
 IATA-packing instructions - Cargo: 364  
 IATA-max. quantity - Cargo: 60 L  
 Other applicable information (air transport)  
 E2  
 : Y341

**14.5. Environmental hazards**

Dangerous for the environment: no

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

National regulatory information

**SECTION 16: Other information**

Full text of R phrases referred to under Sections 2 and 3

11 Highly flammable.  
 43 May cause sensitisation by skin contact.

Full text of H statements referred to under Sections 2 and 3

H225 Highly flammable liquid and vapour.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

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Product code: 2100-GHS

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Etching Gel

Product group:

Endprodukt

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.3. Details of the supplier of the safety data sheet**

Company name:	DMG Chemisch-Pharmazeutische Fabrik GmbH	
Street:	Elbgaustraße 248	
Place:	D-22547 Hamburg	
Telephone:	+49. (0) 40. 84006-0	Telefax: +49. (0) 40. 84006-222
e-mail:	info@dmg-dental.com	
Internet:	www.dmg-dental.com	

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Indications of danger: C - Corrosive

R phrases:

Causes burns.

**GHS classification**

Hazard categories:

Skin corrosion/irritation: Skin Corr. 1B

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

Causes severe skin burns and eye damage.

**2.2. Label elements****Hazardous components which must be listed on the label**

Phosphoric acid ... %; orthophosphoric acid

Signal word:

Danger

Pictograms:

GHS05

**Hazard statements**

H314

Causes severe skin burns and eye damage.

**Precautionary statements**

P280

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

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

PHOSPHORIC ACID



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**Hazardous components**

EC No.	Classification	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
231-633-2		
7664-38-2	C - Corrosive R34	30 - 45 %
015-011-00-6	Skin Corr. 1B; H314	

Full text of R and H phrases: see Section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures****After inhalation**

not applicable

**After contact with skin**

After contact with skin, wash immediately with: Water and soap.

**After contact with eyes**

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**After ingestion**

Immediately get medical attention.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Additional information**

Material is not combustible.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Wear suitable protective clothing.

**6.2. Environmental precautions**

Do not empty into drains or the aquatic environment.

**6.3. Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Keep container tightly closed. Wear suitable protective clothing and gloves. Avoid contact with eyes.

**Further information on handling**

Ensure adequate ventilation of the storage area.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place.

Store only in original container.

**Advice on storage compatibility**

Do not store together with: Alkalis (alkalis). metal.



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**Exchiner Gel**

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Product code: 0001-0013

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**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7664-38-2	Orthophosphoric acid	-	1		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL

**8.2. Exposure controls****Protective and hygiene measures**

When using do not eat or drink.

**Respiratory protection**

The following must be prevented: inhalation. Exceeding critical value: Filter respirator (full mask or mouth-piece) with filter: A

**Hand protection**

Wear suitable gloves.: NBR (Nitrile rubber). Butyl rubber.

**Eye protection**

Tightly sealed safety glasses.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: Jelly  
 Colour: blue

**Test method**

pH-Value: ca. 1

**Changes in the physical state**

Boiling point: 100 °C

Flash point: not applicable

Lower explosion limits: not applicable

Upper explosion limits: not applicable

Ignition temperature: not applicable

Vapour pressure:  
(at 23 °C) 20 hPaDensity: 1,4 g/cm<sup>3</sup>

Water solubility: easily soluble.

Vapour density: &lt; 1

**SECTION 10: Stability and reactivity****10.5. Incompatible materials**

Alkalis (alkalis).

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Product code: 2010-1-10

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**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

LD50: Rat. &gt;810mg/kg

**Irritation and corrosivity**

Irritant effect on the eye: Causes burns.

After skin contact: Causes burns.

**SECTION 12: Ecological information****12.1. Toxicity**

CAS No	Chemical name	Method	Dose	h	Species	Source
7664-38-2	Phosphoric acid, ~ 75% orthophosphoric acid					
	Acute fish toxicity	LC50	138 mg/l	96	Gambusia affinis	

**Further information**

Do not empty into drains or the aquatic environment. Leakage into the environment must be prevented.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Remove according to the regulations.

**Waste disposal number of waste from residues/unused products**

180106 WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care); wastes from natal care, diagnosis, treatment or prevention of disease in humans; chemicals consisting of or containing dangerous substances  
Classified as hazardous waste.

**SECTION 14: Transport information****Land transport (ADR/RID)**

**14.1. UN number:** 1805  
**14.2. UN proper shipping name:** PHOSPHORIC ACID SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
**Hazard label:** 8



**Classification code:** C1  
**Limited quantity:** 5 L  
**Transport category:** 3  
**Hazard No:** 80  
**Tunnel restriction code:** E

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Produktname: H3PO4

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## Other applicable information (land transport)

E1

## Marine transport (IMDG)

**14.1. UN number:** 1805  
**14.2. UN proper shipping name:** PHOSPHORSÄURE, LÖSUNG  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
 Hazard label: 8



Special Provisions: 223  
 Limited quantity: 5 L  
 EmS: F-A, S-B

## Other applicable information (marine transport)

E1

## Air transport (ICAO)

**14.1. UN number:** 1805  
**14.2. UN proper shipping name:** PHOSPHORSÄURE, LÖSUNG  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
 Hazard label: 8



Special Provisions: A3  
 Limited quantity Passenger: 1 L  
 IATA-packing instructions - Passenger: 852  
 IATA-max. quantity - Passenger: 5 L  
 IATA-packing instructions - Cargo: 856  
 IATA-max. quantity - Cargo: 60 L

## Other applicable information (air transport)

E1

: Y841

## 14.5. Environmental hazards

Dangerous for the environment: no

## SECTION 15: Regulatory information

## 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

## National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

## SECTION 16: Other information

## Full text of R phrases referred to under Sections 2 and 3

34 Causes burns.

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### Full text of H statements referred to under Sections 2 and 3

H314

Causes severe skin burns and eye damage.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*