

SAFETY DATA SHEETS

This SDS packet was issued with item:

077812233

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

077812001 077812019 077812027 077812035 077812043 077812050 077812068 077812076 077812084 077812092
077812100 077812159 077812167 077812175 077812183 077812191 077812209 077812217 077812225 077812241
077812258

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Vitique

Print date: 28.03.2013

Product code: 1040

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

Vitique

Product group:

Endprodukt

Relevant identified uses of the substance or mixture and uses advised against**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**Classification of the substance or mixture**

Indications of danger : Irritant

R-phrases:

Irritating to eyes, respiratory system and skin.

May cause sensitization by skin contact.

Label elements

Danger symbols:

Xi - Irritant



Xi - Irritant

Hazardous components which must be listed on the label

Methacrylic esters.

R phrases

36/37/38	Irritating to eyes, respiratory system and skin.
43	May cause sensitization by skin contact.

S phrases

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 Water and soap..
61	Avoid release to the environment. Refer to special instructions / Safety data sheets.
24/25	Avoid contact with skin and eyes.
36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

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

chemical characterization (preparation): Acrylate.-resin.

SECTION 4: First aid measures**Description of first aid measures**

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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.

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**Extinguishing media****Suitable extinguishing media**Water fog. Extinguishing powder. Sand. Foam. Carbon dioxide (CO₂).**Extinguishing media which must not be used for safety reasons**

High power water jet.

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

Provide adequate ventilation. Wear suitable protective clothing.

Environmental precautions

Do not empty into drains or the aquatic environment.

Methods and material for containment and cleaning up

Collect mechanically.

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

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

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

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/personal protection**Control parameters****Exposure controls****Protective and hygiene measures**

Take off immediately all contaminated clothing. When using do not eat or drink.

Respiratory protection

The following must be prevented: inhalation.

Hand protection

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

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Eye protection

Tightly sealed safety glasses.

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

Physical state:	Paste
Colour:	yellow
Odour:	like: ester

Test method

pH-Value:	2,5
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Changes in the physical state

Boiling point:	>200 °C
Zersetzungspunkt:	>60 °C
Vapour pressure: (at 20 °C)	1 hPa
Density:	1,9 g/cm ³
Water solubility: (at 20 °C)	5% g/L
Vapour density:	> 1

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

heat. Light.
Decomposition takes place from temperatures above: 60 °C

Incompatible materials

radical former. Keep away from strong acids, leachates, heavy metal salts and reducing materials.

Hazardous decomposition products

Can be released in case of fire: Gas / vapours, irritant. (Acrylate., pungent)

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

LD50: Rat. 1.000 mg/kg

Irritation and corrosivity

Irritant effect on the eye: strong irritant. Risk of serious damage to eyes.

Sensitising effects

May cause sensitization by skin contact.

Additional information on tests

Contains Methacrylic esters.: May produce an allergic reaction.

SECTION 12: Ecological information**Persistence and degradability**

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

SECTION 13: Disposal considerations

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Waste treatment methods**Advice on disposal**

Can be burnt together with household waste in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.

Paste: Carry out a burning of hazardous waste according to official 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**Other applicable information**

Not a hazardous material with respect to these transportation regulations.

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

Water contaminating class (D): 2 - water contaminating

SECTION 16: Other information**Full text of R-phrases referred to under sections 2 and 3**

36/37/38 Irritating to eyes, respiratory system and skin.
43 May cause sensitization by skin contact.

Full text of H-Statements referred to under sections 2 and 3

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Further Information

-

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

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

TECO

Print date: 31.08.2010

MSDS: 2222

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1. Identification of the substance/preparation and of the company/undertaking**Identification of the substance or preparation**

TECO

Company/undertaking identification

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
Internet:	www.dmg-dental.com	e-mail:	info@dmg-dental.com

2. Hazards identification**Classification**

Indications of danger : Irritant
R-phrases:
Irritating to eyes, respiratory system and skin.
May cause sensitization by skin contact.

3. Composition/information on ingredients**Chemical characterization (Mixture)**

chemical characterization (preparation): Acrylate.-resin.

4. 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.

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.

5. Fire-fighting measures**Suitable extinguishing media**Water fog. Extinguishing powder. Sand. Foam. Carbon dioxide (CO₂).**Extinguishing media which must not be used for safety reasons**

High power water jet.

6. Accidental release measures**Personal precautions**

Wear suitable protective clothing. Provide adequate ventilation.

Environmental precautions

Do not empty into drains or the aquatic environment.

Methods for cleaning up/taking up

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

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Print date: 31.08.2010

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7. Handling and storage**Handling****Advice on safe handling**

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

Storage**Requirements for storage rooms and vessels**

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

Store only in original container.

8. Exposure controls/personal protection**Exposure limit values****Exposure controls****Occupational exposure controls**

Ensure adequate ventilation of the storage area.

Protective and hygiene measures

When using do not eat or drink.

Respiratory protection

The following must be prevented: inhalation.

Hand protection

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

Eye protection

Tightly sealed safety glasses.

9. Physical and chemical properties**General information**

Physical state:	liquid
Colour:	yellow
Odour:	like: ester

Important health, safety and environmental information

	Test method
pH-Value (at 20 °C):	3,5
Changes in the physical state	
Boiling point:	100 °C
point of decomposition:	> 200 °C
Flash point:	> 100 °C
Vapour pressure: (at 20 °C)	23 hPa
Density:	1,1 g/cm ³
Solubility in other solvents:	Solubility ca. 50 %
Vapour density:	> 1

10. Stability and reactivity

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Conditions to avoid

Light. heat.

Materials to avoid

Keep away from strong acids, leachates, heavy metal salts and reducing materials.

Hazardous decomposition products

Can be released in case of fire: Gas / vapours, irritant. (Acrylate., pungent)

11. Toxicological information**Acute toxicity**

LD50: Rat. 5500mg/kg

Corrosive and irritant effects

Frequently or prolonged contact with skin may cause dermal irritation.

Irritant effect on the eye: Frequently or prolonged contact with skin may cause dermal irritation.

Sensitising effects

May cause sensitization by skin contact.

Additional information on tests

Contains Methacrylates: May produce an allergic reaction. May cause sensitization by skin contact.

12. Ecological information**Ecotoxicity**

Aquatic toxicity LC50: > 360 mg / l / 48h

Persistence and degradability

Product is partially biodegradable. 50%

Further information

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

13. Disposal considerations**Advice on disposal**

Can be burnt together with household waste in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.

Carry out a burning of hazardous waste according to official 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.

14. Transport information**Other applicable information**

Not a hazardous material with respect to these transportation regulations.

15. Regulatory information**Labelling**

Danger symbols:

Xi - Irritant

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Hazardous components which must be listed on the label

Methacrylic esters.

R phrases

- 36/37/38 Irritating to eyes, respiratory system and skin.
43 May cause sensitization by skin contact.

S phrases

- 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 Water and soap. .

National regulatory information

Water contaminating class (D): 2 - water contaminating

16. Other information**Full text of R-phrases referred to under sections 2 and 3**

- 36/37/38 Irritating to eyes, respiratory system and skin.
43 May cause sensitization by skin contact.

Further Information

-

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Etching Gel

Print date: 01.04.2014

Product code: 6100_GHS

Page 1 of 6

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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Product code: 6100_GHS

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Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
231-633-2	Phosphoric acid ... %; orthophosphoric acid	30 - 45 %
7664-38-2	C - Corrosive R34	
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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Product code: 6100_GHS

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

CAS No	Substance	ppm	mg/m ³	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: 20 hPa
(at 23 °C)Density: 1,4 g/cm³

Water solubility: easily soluble.

Vapour density: < 1

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

Alkalies (alkalis).

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according to Regulation (EC) No 1907/2006

Etching Gel

Print date: 01.04.2014

Product code: 6100_GHS

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

LD50: Rat. >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				
	Aquatic toxicity	Method	Dose	h	Species
7664-38-2	Phosphoric acid ... %; 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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Print date: 01.04.2014

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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.)

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Silan A

Print date: 01.04.2014

Product code: 6125_GHS

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

Silan A

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.

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.

Precautionary statements

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

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

Ethanol.

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according to Regulation (EC) No 1907/2006

Silan A

Print date: 01.04.2014

Product code: 6125_GHS

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Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
200-578-6	ethanol, ethyl alcohol	65 - 75 %
64-17-5	F - Highly flammable R11	
603-002-00-5	Flam. Liq. 2; H225	
231-633-2	Phosphoric acid ... %; orthophosphoric acid	< 5 %
7664-38-2	C - Corrosive R34	
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**

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.

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 (CO₂). 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**

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Advice on safe handling

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

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

Keep in a cool place.

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

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

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: ca. 5

Changes in the physical state

Boiling point: ca. 80 °C

Flash point: 12 °C

Water solubility: complete miscible

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

heat.

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Silan A

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10.5. Incompatible materials

Oxidizing agents. Alkali metals.

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

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: > 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
		mg/l				
7664-38-2	Phosphoric acid ... %; orthophosphoric acid					
	Acute fish toxicity	LC50	138 mg/l	96	Gambusia affinis	

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

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Silan A

Print date: 01.04.2014

Product code: 6125_GHS

Page 5 of 6

Land transport (ADR/RID)

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



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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Silan A

Print date: 01.04.2014

Product code: 6125_GHS

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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.

34 Causes burns.

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

H225 Highly flammable liquid and vapour.

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.)

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Silan B

Print date: 01.04.2014

Product code: 6126_GHS

Page 1 of 4

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

Silan B

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**2.2. Label elements**

Signal word:	Warning
Pictograms:	GHS07

**Hazard statements**

H335	May cause respiratory irritation.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements

P337+P313	If eye irritation persists: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.

SECTION 3: Composition/information on ingredients**3.1. Substances**

Chemical characterization
Silane

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.

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Silan B

Print date: 01.04.2014

Product code: 6126_GHS

Page 2 of 4

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**Water fog. Extinguishing powder. Sand. Foam. Carbon dioxide (CO₂).**Extinguishing media which must not be used for safety reasons**

High power water jet.

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

Wear suitable protective clothing. Provide adequate ventilation.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment.

6.3. Methods and material for containment and cleaning up

Collect mechanically.

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.

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/personal protection**8.1. Control parameters****8.2. Exposure controls****Occupational exposure controls**

Ensure adequate ventilation of the storage area.

Protective and hygiene measures

When using do not eat or drink.

Respiratory protection

The following must be prevented: inhalation.

Hand protection

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

Eye protection

Tightly sealed safety glasses.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Silan B

Print date: 01.04.2014

Product code: 6126_GHS

Page 3 of 4

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

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

Test method**Changes in the physical state**

Boiling point:	250 °C
Flash point:	110 °C
Density:	1.04 g/cm³
Water solubility:	not miscible
Vapour density:	> 1

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

heat.

10.5. Incompatible materials

Keep away from strong acids, leachates, heavy metal salts and reducing materials.

10.6. Hazardous decomposition products

Can be released in case of fire: Gas / vapours, irritant. (Acrylate., pungent)

Decomposition under formation of: Methanol.

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

LD50: (Rat): > 5000 mg/kg

Frequently or prolonged contact with skin may cause dermal irritation.

Irritation and corrosivity

Frequently or prolonged contact with skin may cause dermal irritation.

Irritant effect on the eye:

Sensitising effects

May cause sensitization by skin contact.

Additional information on tests

May produce an allergic reaction.

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

Aquatic toxicity:

LC50: (Brachydanio rerio): > 1024 mg/l/96h

12.2. Persistence and degradability

Product is partially biodegradable.

Further information

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

SECTION 13: Disposal considerations

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Silan B

Print date: 01.04.2014

Product code: 6126_GHS

Page 4 of 4

13.1. Waste treatment methods**Advice on disposal**

Can be burnt together with household waste in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.

Paste: Carry out a burning of hazardous waste according to official 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**Other applicable information**

Not a hazardous material with respect to these transportation regulations.

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): 2 - water contaminating

SECTION 16: Other information**Full text of R phrases referred to under Sections 2 and 3**

36/37/38 Irritating to eyes, respiratory system and skin.
43 May cause sensitisation by skin contact.

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

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Further Information

-

Safety Data Sheet

Vitique

Product code: 21380, 21381, 21382 (GHS_1040)

Page 1 of 5

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Vitique Veneer System: 213080. **Vitique Silane Adhesive:** 213081. **Vitique Veneer Accessory Kit:** 213082.

Vitique Base Refill Syringe: 213038, 213039, 213040, 213041, 213042, 213043, 213044, 213045

Vitique Try-In Refill Syringe: 213048, 213049, 21350, 213051, 213052, 213053, 213054, 213055

Vitique Accessory: 213057, 21058

1.3. Details of the supplier of the safety data sheet

1.2. Relevant identified uses of the substance or mixture and uses advised against

Company Name: DMG AMERICA LLC
Address: 242 South Dean Street
Englewood, NJ. 07631
Telephone No.: (800) 662 - 6383
Email: info@dmg-america.com
Website: www.dmg-america.com

SDS Emergency No. INFOTRAC (800) 535 - 5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory/skin sensitization: Skin Sens. 1

Hazard Statements:

Causes serious eye damage.

May cause an allergic skin reaction.

2.2. Label elements

Signal word:

Danger

Pictograms:

GHS05-GHS07



Hazard statements

H318

Causes serious eye damage.

H317

May cause an allergic skin reaction.

Precautionary statements

P305+P351+P338

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

P333+P313

If skin irritation or rash occurs: Get medical advice/attention.

P280

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

chemical characterization (preparation): Acrylate.-resin.

Safety Data Sheet

Vitique

Product code: 21380, 21381, 213082 (GHS_1040)

Page 2 of 5

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
	Bis-GMA	
1565-94-2	Xi - Irritant R41-43	25 - 35 %

Full text of R-, H- and EUH-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.

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

Suitable extinguishing media

Water fog. Extinguishing powder. Sand. Foam. Carbon dioxide (CO2).

Unsuitable extinguishing media

High power water jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. 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

Collect mechanically.

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.

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.

Safety Data Sheet

Vitique

Product code: 21380, 21381, 213082 (GHS_1040)

Page 3 of 5

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls



Protective and hygiene measures

Take off immediately all contaminated clothing. When using do not eat or drink.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

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

Respiratory protection

The following must be prevented: inhalation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Paste
Colour:	yellow
Odour:	like: ester

	Test method
pH-Value:	2.5
Changes in the physical state	
Initial boiling point and boiling range:	>200 °C
Decomposition temperature:	>60 °C
Vapour pressure: (at 20 °C)	1 hPa
Density:	1.9 g/cm ³
Water solubility: (at 20 °C)	5% g/L
Vapour density:	> 1

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

heat. Light.

Decomposition takes place from temperatures above: 60 °C

10.5. Incompatible materials

radical former. Keep away from strong acids, leachates, heavy metal salts and reducing materials.

10.6. Hazardous decomposition products

Can be released in case of fire: Gas / vapours, irritant. (Acrylate., pungent)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

ATEmix tested

Safety Data Sheet

Vitique

Product code: 21380, 21381, 213082 (GHS_1040)

Page 4 of 5

LD50, oral

Dose
> 10000 mg/kg

Species
Rat.

Source
calculated.

Irritation and corrosivity

Irritant effect on the eye: strong irritant. Risk of serious damage to eyes.

Sensitising effects

May cause sensitization by skin contact.

Severe effects after repeated or prolonged exposure

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

No data available

Additional information on tests

Contains Methacrylic esters.: May produce an allergic reaction.

SECTION 12: Ecological information

12.2. Persistence and degradability

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

Preparation not tested.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Can be burnt together with household waste in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.

Paste: Carry out a burning of hazardous waste according to official 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

Other applicable information

Not a hazardous material with respect to these transportation regulations.

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): 2 - water contaminating

SECTION 16: Other information

Relevant R-phrases (Number and full text)

41 Risk of serious damage to eyes.

43 May cause sensitisation by skin contact.

Relevant H- and EUH-phrases (Number and full text)

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

Safety Data Sheet

Vitique

Product code: 21380, 21381, 213082 (GHS_1040)

Page 5 of 5

Further Information

-

(The data for the hazardous ingredients were taken respectively from the last version 04/15/2016 of the sub-contractor's safety data sheet.)

Safety Data Sheet

ETCHING GEL

(GHS_6100)

Page 1 of 6

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

EtchingGel

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 AMERICA LLC
Address: 242 South Dean St
Englewood, NJ. 07631
Telephone No.: (800) 662 - 6383
Email: Info@dmg-america.com
Website: www.dmg-america.com

SDS Emergency No. INFOTRAC (800) 535 - 5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

This mixture is not classified as hazardous according to Directive 1999/45/EC.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Skin corrosion/irritation: Skin Corr. 1B

Hazard Statements:

May be corrosive to metals.

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

H290 May be corrosive to metals.

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

Safety Data Sheet

ETCHING GEL

(GHS_6100)

Page 2 of 6

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
231-633-2	Phosphoric acid ... %; orthophosphoric acid	30 - 45 %
7664-38-2	C - Corrosive R34	
015-011-00-6	Skin Corr. 1B; H314	

Full text of R-, H- and EUH-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.

Safety Data Sheet

ETCHING GEL

(GHS_6100)

Page 3 of 6

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	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.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

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

Respiratory protection

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

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

Initial boiling point and boiling range: 100 °C

Flash point: not applicable

Lower explosion limits: not applicable

Upper explosion limits:

Ignition temperature: not applicable

Vapour pressure: 20 hPa
(at 23 °C)

Density: 1,4 g/cm³

Water solubility: easily soluble.

Vapour density: < 1

SECTION 10: Stability and reactivity

10.5. Incompatible materials

Alkalis (alkalis).

Safety Data Sheet

ETCHING GEL

(GHS_6100)

Page 4 of 6

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

LD50: Rat. >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					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
7664-38-2	Phosphoric acid ... %; orthophosphoric acid					
	Acute fish toxicity	LC50	138 mg/l	96 h	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: UN 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

Other applicable information (land transport)

E1

Safety Data Sheet

ETCHING GEL

(GHS_6100)

Page 5 of 6

Marine transport (IMDG)

14.1. UN number: UN 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



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: UN 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



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

ENVIRONMENTALLY HAZARDOUS: 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

Relevant R-phrases (Number and full text)

34 Causes burns.

Relevant H- and EUH-phrases (Number and full text)

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Safety Data Sheet

ETCHING GEL

(GHS_6100)

Page 6 of 6

(The data for the hazardous ingredients were taken respectively from the last version 04/13/2016 of the sub-contractor's safety data sheet.)

Safety Data Sheet

TECO

(GHS_2222)

Page 1 of 5

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

TECO

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 AMERICA LLC
Address: 242 South Dean Street
Englewood, NJ. 07631
Telephone No.: (800) 662 - 6383
Email: info@dmg-america.com
Website: www.dmg-america.com

SDS Emergency No. INFOTRAC (800) 535 - 5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory or skin sensitisation: Skin Sens. 1

Hazard Statements:

May cause respiratory irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word: Danger

Pictograms:



Hazard statements

H335 May cause respiratory irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.

Precautionary statements

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P313 Get medical advice/attention.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

chemical characterization (preparation): Acrylate.-resin.

Safety Data Sheet

TECO

(GHS_2222)

Page 2 of 5

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
1565-94-2	Bis-GMA			15 - 25 %

Full text of H and EUH statements: 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.

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

Suitable extinguishing media

Water fog. Extinguishing powder. Sand. Foam. Carbon dioxide (CO₂).

Unsuitable extinguishing media

High power water jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing. Provide adequate ventilation.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment.

6.3. Methods and material for containment and cleaning up

Collect mechanically.

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.

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/personal protection

Safety Data Sheet

TECO

(GHS_2222)

Page 3 of 5

8.1. Control parameters

8.2. Exposure controls



Appropriate engineering controls

Ensure adequate ventilation of the storage area.

Protective and hygiene measures

When using do not eat or drink.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

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

Respiratory protection

The following must be prevented: inhalation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	yellow
Odour:	like: ester

	Test method
pH-Value (at 20 °C):	4.5 - 7

Changes in the physical state

Initial boiling point and boiling range:	100 °C
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point of decomposition:	> 200 °C
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Flash point:	> 100 °C
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Vapour pressure: (at 20 °C)	23 hPa
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Density:	1,1 g/cm ³
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Solubility in other solvents

Solubility ca. 50 %

Vapour density:	> 1
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SECTION 10: Stability and reactivity

10.4. Conditions to avoid

Light. heat.

10.5. Incompatible materials

Keep away from strong acids, leachates, heavy metal salts and reducing materials.

10.6. Hazardous decomposition products

Can be released in case of fire: Gas / vapours, irritant. (Acrylate., pungent)

Further information

Substances sensitive to light.

SECTION 11: Toxicological information

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11.1. Information on toxicological effects

Acute toxicity

LD50: Rat. 5500mg/kg

Irritation and corrosivity

Frequently or prolonged contact with skin may cause dermal irritation.

Irritant effect on the eye: Frequently or prolonged contact with skin may cause dermal irritation.

Sensitising effects

May cause sensitization by skin contact.

Additional information on tests

Contains Methacrylates: May produce an allergic reaction. May cause sensitization by skin contact.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity LC50: > 360 mg / l / 48h

12.2. Persistence and degradability

Product is partially biodegradable. 50%

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

Can be burnt together with household waste in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.

Carry out a burning of hazardous waste according to official 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 hazardous substances
Classified as hazardous waste.

SECTION 14: Transport information

Other applicable information

Not a hazardous material with respect to these transportation regulations.

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): - - not water contaminating

SECTION 16: Other information

Relevant H and EUH statements (number and full text)

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

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Further Information

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(The data for the hazardous ingredients were taken respectively from the last version 04/14/2016 of the sub-contractor's safety data sheet.)

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Vitique Silane A

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Vitique Silane A

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 AMERICA LLC
Address: 242 South Dean Street
City, State, Zip Code: Englewood NJ. 07631
Telephone No.: (800) 662 - 6383
Email: Info@dmg-america.com
Website: www.dmg-america.com

SDS Emergency No. INFOTRAC (800) 535 - 5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

This mixture is not classified as hazardous according to Directive 1999/45/EC.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Flammable liquid: Flam. Liq. 2

Skin corrosion/irritation: Skin Corr. 1B

Hazard Statements:

Highly flammable liquid and vapour.

Causes skin irritation.

2.2. Label elements

Signal word: Danger

Pictograms: GHS02



Hazard statements

H225

Highly flammable liquid and vapour.

H315

Causes skin irritation.

Precautionary statements

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Ethanol.

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Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
200-578-6	ethanol, ethyl alcohol	65 - 75 %
64-17-5	F - Highly flammable R11	
603-002-00-5	Flam. Liq. 2; H225	
231-633-2	Phosphoric acid ... %; orthophosphoric acid	< 5 %
7664-38-2	C - Corrosive R34	
015-011-00-6	Skin Corr. 1B; H314	

Full text of R-, H- and EUH-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.

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 (CO₂). Extinguishing powder. Sand.

Unsuitable extinguishing media

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

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Advice on safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a cool place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

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

Eye/face protection

Tightly sealed safety glasses.

Hand protection

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

Respiratory protection

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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

pH-Value:	ca. 5
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Changes in the physical state

Initial boiling point and boiling range:	ca. 80 °C
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Flash point:	12 °C
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Water solubility:	complete miscible
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Test method

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

heat.

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10.5. Incompatible materials

Oxidizing agents. Alkali metals.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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: > 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] [d]	Species	Source
64-17-5	ethanol, ethyl alcohol					
	Acute crustacea toxicity	EC50 mg/l	9268 - 14221	48 h	Daphnia magna	IUCLID
7664-38-2	Phosphoric acid ... %; orthophosphoric acid					
	Acute fish toxicity	LC50	138 mg/l	96 h	Gambusia affinis	

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

- 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

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Vitique Silane A

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Land transport (ADR/RID)

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



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

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Other applicable information (air transport)

E2
: Y341

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: 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

Relevant R-phrases (Number and full text)

11 Highly flammable.
34 Causes burns.

Relevant H- and EUH-phrases (Number and full text)

H225 Highly flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.

(The data for the hazardous ingredients were taken respectively from the last version 01/13/2016 of the sub-contractor's safety data sheet.)

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Vitique Silane B

(GHS_6126)

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Vitique Silane B

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 AMERICA LLC	
Address:	242 South Dean Street	
City, State, Zip code:	Englewood, NJ. 07631	
Telephone No.:	(800) 662 - 6383	SDS Emergency No. INFOTRAC (800) 535 - 5053
Email:	Info@dmg-america.com	
Website:	www.dmg-america.com	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

This substance is not classified as hazardous according to Directive 67/548/EEC.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

This substance is not classified as hazardous according to Regulation (EC) No. 1272/2008.

2.2. Label elements

Signal word: Warning

Precautionary statements

P337+P313	If eye irritation persists: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352	IF ON SKIN: Wash with plenty of water.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

METHACRYLOYL PROPYLTRIMETHOXYSILANE (100%)
CAS: 2530-85-0

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.

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

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Vitique Silane B

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Suitable extinguishing media

Water fog. Extinguishing powder. Sand. Foam. Carbon dioxide (CO₂).

Unsuitable extinguishing media

High power water jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing. Provide adequate ventilation.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment.

6.3. Methods and material for containment and cleaning up

Collect mechanically.

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.

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/personal protection

8.1. Control parameters

8.2. Exposure controls



Appropriate engineering controls

Ensure adequate ventilation of the storage area.

Protective and hygiene measures

When using do not eat or drink.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

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

Respiratory protection

The following must be prevented: inhalation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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

Test method

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Vitique Silane B

(GHS_6126)

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Changes in the physical state

Initial boiling point and boiling range:	250 °C
Flash point:	110 °C
Density:	1.04 g/cm ³
Water solubility:	not miscible
Vapour density:	> 1

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

heat.

10.5. Incompatible materials

Keep away from strong acids, leachates, heavy metal salts and reducing materials.

10.6. Hazardous decomposition products

Can be released in case of fire: Gas / vapours, irritant. (Acrylate., pungent)

Decomposition under formation of: Methanol.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

LD50: (Rat): > 5000 mg/kg

Frequently or prolonged contact with skin may cause dermal irritation.

Irritation and corrosivity

Frequently or prolonged contact with skin may cause dermal irritation.

Irritant effect on the eye:

Sensitising effects

May cause sensitization by skin contact.

Additional information on tests

May produce an allergic reaction.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

LC50: (Brachydanio rerio): > 1024 mg/l/96h

12.2. Persistence and degradability

Product is partially biodegradable.

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

Can be burnt together with household waste in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.

Paste: Carry out a burning of hazardous waste according to official regulations.

Waste disposal number of waste from residues/unused products

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Vitique Silane B

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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

Other applicable information

Not a hazardous material with respect to these transportation regulations.

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): 2 - water contaminating

SECTION 16: Other information

Further Information

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(The data for the hazardous ingredients were taken respectively from the last version 01/13/2016 of the sub-contractor's safety data sheet.)