SAFETY DATA SHEETS

This SDS packet was issued with item:

077812258

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 077812233 077812241

Telefax: +49. (0) 40. 84006-222

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Vitique

Print date: 28.03.2013 Product code: 1040 Page 1 of 4

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

www.dmg-dental.com

Street: Elbgaustraße 248
Place: D-22547 Hamburg
Telephone: +49. (0) 40. 84006-0

e-mail: info@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

Internet:

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

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

according to Regulation (EC) No 1907/2006

Vitique

Print date: 28.03.2013 Product code: 1040 Page 2 of 4

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).

according to Regulation (EC) No 1907/2006

Vitique

Print date: 28.03.2013 Product code: 1040 Page 3 of 4

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

Changes in the physical state

Boiling point: >200 °C
Zersetzungspunkt: >60 °C
Vapour pressure: 1 hPa

(at 20 °C)

Density: 1,9 g/cm³ Water solubility: 5% g/L

(at 20 °C)

Vapour density: > 1

SECTION 10: Stability and reactivity

Conditions to avoid

heat. Light.

Decompostion 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

according to Regulation (EC) No 1907/2006

Vitique

Print date: 28.03.2013 Product code: 1040 Page 4 of 4

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 harzardous 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.)

according to Regulation (EU) No. 1907/2006

TECO

Print date: 31.08.2010 MSDS: 2222 Page 1 of 4

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).

according to Regulation (EU) No. 1907/2006

TECO

Print date: 31.08.2010 MSDS: 2222 Page 2 of 4

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: 23 hPa

(at 20 °C)

Density: 1,1 g/cm³

Solubility in other solvents: Solubility ca. 50 %

Vapour density: > 1

10. Stability and reactivity

according to Regulation (EU) No. 1907/2006

TECO

Print date: 31.08.2010 MSDS: 2222 Page 3 of 4

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

Aquatoxicity LC50: > 360 mg / I / 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 harzardous 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

according to Regulation (EU) No. 1907/2006

TECO

Print date: 31.08.2010 MSDS: 2222 Page 4 of 4

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

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

After contact with skin, wash immediately with plenty of Water 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.)

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

Telephone: +49. (0) 40. 84006-0 Telefax: +49. (0) 40. 84006-222 e-mail: info@dmg-dental.com

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

according to Regulation (EC) No 1907/2006

Etching GelPrint date: 01.04.2014Product code: 6100_GHSPage 2 of 6

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.

according to Regulation (EC) No 1907/2006

Etching Gel

Print date: 01.04.2014 Product code: 6100_GHS Page 3 of 6

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	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:

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).

according to Regulation (EC) No 1907/2006

Etching Gel

Product code: 6100 GHS Print date: 01.04.2014 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 Species Source							
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

PHOSPHORIC ACID SOLUTION 14.2. UN proper shipping name:

8 14.3. Transport hazard class(es): 14.4. Packing group: Ш Hazard label:



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

according to Regulation (EC) No 1907/2006

Etching Gel

Print date: 01.04.2014 Product code: 6100_GHS Page 5 of 6

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):814.4. Packing group:IIIHazard 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):814.4. Packing group:IIIHazard label:8



Special Provisions: A3
Limited quantity Passenger: 1 L

IATA-packing instructions - Passenger:852IATA-max. quantity - Passenger:5 LIATA-packing instructions - Cargo:856IATA-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.

according to Regulation (EC) No 1907/2006

	Etching Gel	
Print date: 01.04.2014	Product code: 6100_GHS	Page 6 of 6

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.)

according to Regulation (EC) No 1907/2006

Silan A

Print date: 01.04.2014 Product code: 6125_GHS Page 1 of 6

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

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.

according to Regulation (EC) No 1907/2006

Silan A

Print date: 01.04.2014 Product code: 6125_GHS Page 2 of 6

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

according to Regulation (EC) No 1907/2006

Silan A

Print date: 01.04.2014 Product code: 6125_GHS Page 3 of 6

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/m³	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.

according to Regulation (EC) No 1907/2006

Silan A

Print date: 01.04.2014 Product code: 6125_GHS Page 4 of 6

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	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 / I / 48 h (Ethanol); Acute Daphnia toxicity (Daphnia magna): EC50: 9268 - 14221 mg / I / 48 h

CAS No	Chemical name							
	Aquatic toxicity	Method	Dose	h	Species	Source		
64-17-5	ethanol, ethyl alcohol							
	Acute crustacea toxicity	EC50 mg/l	9268 - 14221	48	Daphnia magna	IUCLID		
7664-38-2	Phosphoric acid %; orthophos	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

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):314.4. Packing group:IIHazard 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):314.4. Packing group:IIHazard 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):314.4. Packing group:IIHazard 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

according to Regulation (EC) No 1907/2006

Silan A

Print date: 01.04.2014 Product code: 6125_GHS Page 6 of 6

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

Highly flammable.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.)

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.

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.

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

Aquatoxicity:

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

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 harzardous 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

Vitique

Product code: 21380, 21381, 213082 (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.

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	25 - 35 %
1565-94-2	Xi - Irritant R41-43	

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.

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: 1 hPa

(at 20 °C)

Density: 1.9 g/cm³
Water solubility: 5% g/L
(at 20 °C)

Vapour density: > 1

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

heat. Light.

Decompostion 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

Vitique

Product code: 21380, 21381, 213082 (GHS 1040)

Page 4 of 5

Dose

Species

Source

LD50, oral

> 10000 mg/kg

Rat.

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 harzardous 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.

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.)

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 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 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

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.

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/m³	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).

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)

UN 1805 14.1. UN number:

14.2. UN proper shipping name: PHOSPHORIC ACID SOLUTION

8

14.3. Transport hazard class(es): 14.4. Packing group: Ш Hazard label: 8



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

Other applicable information (land transport)

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):814.4. Packing group:IIIHazard label:8

8

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

Other applicable information (marine transport)

E,

Air transport (ICAO)

14.1. UN number: UN 1805

14.2. UN proper shipping name: PHOSPHORIC ACID SOLUTION

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8

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.

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.)

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 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

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.

TECO

(GHS 2222)

Page 2 of 5

Hazardous components

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

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

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: $100 \, ^{\circ}\text{C}$ point of decomposition: $> 200 \, ^{\circ}\text{C}$ Flash point: $> 100 \, ^{\circ}\text{C}$ Vapour pressure: $23 \, \text{hPa}$

(at 20 °C)

Density: 1,1 g/cm³

Solubility in other solvents

Solubility ca. 50 %

Vapour density: > 1

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

TECO

(GHS 2222)

Page 4 of 5

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

Aquatoxicity LC50: > 360 mg / I / 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 harzardous 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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(GHS_6125)

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SDS Emergency No. INFOTRAC (800) 535 - 5053

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

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/m³	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

Test method

pH-Value: ca. 5

Changes in the physical state

Initial boiling point and boiling range:

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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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		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 / I / 48 h (Ethanol); Acute Daphnia toxicity (Daphnia magna): EC50: 9268 - 14221 mg / I / 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

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):314.4. Packing group:IIHazard 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):314.4. Packing group:IIHazard label:3



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

Other applicable information (marine transport)

F2

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):314.4. Packing group:IIHazard 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)

Highly flammable.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.)

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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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

Vitique Silane B

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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/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

Aquatoxicity:

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 harzardous waste according to official regulations .

Waste disposal number of waste from residues/unused products

Vitique Silane B

(GHS_6126)

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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

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