

# SAFETY DATA SHEETS

**This SDS packet was issued with item:**

073242781

N/A

# Material Safety Data Sheet

Revision Date: 09.02.2010

(EC 1907/2006)

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6010-22-04

## 1. Chemical product and company identification

**Product name:**

Tray Adhesive

**Supplier:**

**DMG Chemisch-Pharmazeutische Fabrik GmbH**

Elbgaustraße 248

22547 Hamburg

Germany

Fon: +49. (0) 40. 84006-0

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

info@dmg-dental.com

www.dmg-dental.com

**Emergency contact: Infotrac-(800)535-5053**

## 2. Hazards Identification

None, if handled according to directions.

Flammable. Harmful by inhalation. Environmentally hazardous.

## 3. Composition / Information on ingredients

**Common chemical name / Generic name:**

Preparation based on silicone resin and solvent.

Contains mixture of aliphatic hydrocarbons, CAS-No. 64742-49-0.

## 4. First-aid measures

**In case of inhalation:** Take patient to open air. Let sit down calmly.

**In case of skin contact:** Wash with soap and water.

**In case of eye contact :** Immediately rinse with plenty of water, consult a physician.

**In case of ingestion:** Immediately seek medical advice.

## 5. Fire-fighting measures

Flammable. May form explosive vapour-air mixture.

**Extinguishing media:** Powder, sand, foam, carbon dioxide.

**Not suitable extinguishing media:** Direct jet of water

## 6. Accidental release measures

**Personal precautions:** Use only in well-ventilated areas.

Keep away from sources of ignition - No smoking.

**Environmental precautions:** Do not empty into drains.

**Methods for cleaning up:** Take up mechanically, with inert fluid-binding material.

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## 7. Handling and storage

### Handling:

**Technical measures:** Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Use explosion protected devices. Keep container tightly closed in a well-ventilated place.

**Safe handling advice:** Wear suitable gloves. Avoid contact with eyes.

### Storage:

**Technical measures:** Keep container in a well-ventilated place.

**Storage conditions:** Keep container tightly closed in a dark, cool place.

**Recommended packaging material:** Container of glass or metal.

## 8. Exposure controls/personal protection

**Engineering measures:** Use only in well-ventilated areas.

**Limit values:** MAK-TLC-Value: 50 ppm (hexane).  
Schwangerschaftsgruppe C (hexane).

### Personal protective equipment:

**Respiratory protection:** Do not breathe vapour. Breathing mask filter type A. (if TLC is exceeded).

**Hand and skin protection:** Rubber gloves.

**Eye protection:** Goggles.

**Hygiene measures:** When using do not eat or drink.

## 9. Physical und chemical properties

**Appearance:** Blue liquid.

**Odour:** Characteristic

**pH-value:** Not applicable.

### Changes in physical state:

**Boiling temperature:** > ca. 60 °C

**Flashpoint:** > -25 °C

**Ignition temperature:** > 270 °C

**Explosion properties:** 0.8 - 8 Vol. %

**Vapour pressure:** 190 mbar / 20 °C

**rel. vapour density:** > 1

**Density:** 0.8 g/cm<sup>3</sup>

**Solubility in water:** insoluble

## 10 Stability and reactivity

**Thermal decomposition:** No decomposition, if handled and stored according to directions.

**Hazardous reactions:** None, if handled and stored according to directions.

**Conditions to avoid:** Heat, light, naked flame.

**Hazardous decomposition products:** In case of fire: carbon monoxide.

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Trade name: Tray Adhesive  
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## 11 Toxicological information

- **Acute oral toxicity:** LD<sub>50</sub> (rat) > 2000 mg/kg.  
**Irritation of skin :** Irritation possible.  
**Irritation of eye:** Irritation possible.

## 12 Ecological information

- Do not discharge into drains or the environment, dispose to an authorised waste collection point.  
**Persistence und degradability:** No data available for the preparation. Solvent: rapid photochemical oxidation at the air.  
**Ecotoxicity:** Fish toxicity LC<sub>50</sub> > 4480 mg/l (hexane). Toxic effects on aquatic organisms possible.

## 13 Disposal considerations

- **Waste from residues:** Use proper landfill disposal or incineration in accordance with local, state and federal regulations.

## 14 Transport information

- **Regulations for land (road/railroad):**

GGVSE: Class 3, II

ADR: Class 3, II

RID: Class 3, II

- **Regulations for sea:**

IMDG/GGVSee-Code: Class 3, II

EmS: 3-07

MFAG: 310

- **Regulations for air:**

ICAO/IATA-DGR: Class 3, II

**UN-number:** 3295

**Additional information:** Proper shipping name: hydrocarbons, liquid, n.o.s.

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## 15 Regulatory information

• **Labelling according to international regulations:** F, Highly inflammable; Xn, Harmful, N, Environmentally hazardous.  
Contains hexane.

**Symbols of danger:** Flame symbol, St Andrew's cross, Fish symbol.

**R-Phrases:** 11-38-48/20-51/53-65-67

Highly flammable.

Irritating to skin.

Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Harmful: may damage lungs, if swallowed.

Vapours may cause drowsiness and daze.

**S-Phrases:** 9-16-23-29-33-61-62

Keep container in a well-ventilated place.

Keep away from sources of ignition - No smoking.

Do not breathe vapour.

Do not empty into drains.

Take precautionary measures against static discharges.

Avoid discharge into the environment. Refer to special instructions / material safety data sheet.

Do not cause vomiting, if swallowed. Seek medical advice immediately and show this container or label.

**VbF-class:** A1

## 16 Other information

• None

The data given here is based on current knowledge and experience. The data does not signify any warranty with regard to the product's properties.

# Safety Data Sheet

## Vitique

Product code: 21380, 21381, 213082 (GHS\_1040)

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### 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](mailto:info@dmg-america.com)  
**Website:** [www.dmg-america.com](http://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)

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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		
	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 (CO<sub>2</sub>).

#### 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, 21382 (GHS\_1040)

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## 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<sup>3</sup>

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)

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	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 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)

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## Further Information

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*(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)

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### 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](mailto:Info@dmg-america.com)  
**Website:** [www.dmg-america.com](http://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

# Safety Data Sheet

## ETCHING GEL

(GHS\_6100)

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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		
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)

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

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

#### 8.2. Exposure controls



##### Protective and hygiene measures

When using do not eat or drink.

##### 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/cm<sup>3</sup>

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)

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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	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)

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### 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)

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*(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)

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## 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](mailto:info@dmg-america.com)  
Website: [www.dmg-america.com](http://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)

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## 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 (CO<sub>2</sub>).

#### **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)

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## 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

pH-Value (at 20 °C): 4.5 - 7

#### Test method

### **Changes in the physical state**

Initial boiling point and boiling range: 100 °C

point of decomposition: > 200 °C

Flash point: > 100 °C

Vapour pressure:  
(at 20 °C) 23 hPa

Density: 1,1 g/cm<sup>3</sup>

### **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**

# Safety Data Sheet

TECO  
(GHS\_2222)

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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.

# Safety Data Sheet

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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.)*

# Safety Data Sheet

## Vitique Silane A

(GHS\_6125)

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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](mailto:Info@dmg-america.com)  
**Website:** [www.dmg-america.com](http://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.

# Safety Data Sheet

## Vitique Silane A

(GHS\_6125)

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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 (CO<sub>2</sub>). 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

# Safety Data Sheet

## Vitique Silane A

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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 <sup>3</sup>	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

#### Changes in the physical state

Initial boiling point and boiling range: ca. 80 °C

Flash point: 12 °C

Water solubility: complete miscible

#### Test method

## SECTION 10: Stability and reactivity

### 10.4. Conditions to avoid

heat.



# Safety Data Sheet

## Vitique Silane A (GHS\_6125)

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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

# Safety Data Sheet

## Vitique Silane A

(GHS\_6125)

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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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**Vitique Silane A**  
(GHS\_6125)

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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.

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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.)*

# 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	SDS Emergency No. INFOTRAC (800) 535 - 5053
Address:	242 South Dean Street	
City, State, Zip code:	Englewood, NJ. 07631	
Telephone No.:	(800) 662 - 6383	
Email:	<a href="mailto:Info@dmg-america.com">Info@dmg-america.com</a>	
Website:	<a href="http://www.dmg-america.com">www.dmg-america.com</a>	

### 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

# Safety Data Sheet

## Vitique Silane B

(GHS\_6126)

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### Suitable extinguishing media

Water fog. Extinguishing powder. Sand. Foam. Carbon dioxide (CO<sub>2</sub>).

### 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

# Safety Data Sheet

## 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 <sup>3</sup>
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

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