

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)

Page 1 of 3

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.

Material Safety Data Sheet

Revision date: 09.02.2010

Trade name: Tray Adhesive
6010-22-04

Page 2 of 3

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/cm³

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.

Material Safety Data Sheet

Revision date: 09.02.2010

Trade name: Tray Adhesive
6010-22-04

Page 3 of 3

11 Toxicological information

- **Acute oral toxicity:** LD₅₀ (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 LC₅₀ > 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.

Material Safety Data Sheet

Revision date: 09.02.2010

Trade name: Tray Adhesive
6010-22-04

Page 4 of 3

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)

Page 1 of 5

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

1.1. Product identifier

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

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

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

Vitique Accessory: 213057, 21058

1.3. Details of the supplier of the safety data sheet

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

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

SDS Emergency No. INFOTRAC (800) 535 - 5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard categories:

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory/skin sensitization: Skin Sens. 1

Hazard Statements:

Causes serious eye damage.

May cause an allergic skin reaction.

2.2. Label elements

Signal word:

Danger

Pictograms:

GHS05-GHS07



Hazard statements

H318

Causes serious eye damage.

H317

May cause an allergic skin reaction.

Precautionary statements

P305+P351+P338

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

P333+P313

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

P280

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

chemical characterization (preparation): Acrylate.-resin.

Safety Data Sheet

Vitique

Product code: 21380, 21381, 213082 (GHS_1040)

Page 2 of 5

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
	Bis-GMA	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.

Safety Data Sheet

Vitique

Product code: 21380, 21381, 213082 (GHS_1040)

Page 3 of 5

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls



Protective and hygiene measures

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

Eye/face protection

Tightly sealed safety glasses.

Hand protection

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

Respiratory protection

The following must be prevented: inhalation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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

Test method

pH-Value: 2.5

Changes in the physical state

Initial boiling point and boiling range: >200 °C

Decomposition temperature: >60 °C

Vapour pressure:
(at 20 °C) 1 hPa

Density: 1.9 g/cm³

Water solubility:
(at 20 °C) 5% g/L

Vapour density: > 1

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

heat. Light.

Decomposition takes place from temperatures above: 60 °C

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

ATEmix tested

Safety Data Sheet

Vitique

Product code: 21380, 21381, 213082 (GHS_1040)

Page 4 of 5

	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)

Page 5 of 5

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)

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

Safety Data Sheet

ETCHING GEL

(GHS_6100)

Page 2 of 6

Hazardous components

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

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

not applicable

After contact with skin

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

After contact with eyes

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

After ingestion

Immediately get medical attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Additional information

Material is not combustible.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment.

6.3. Methods and material for containment and cleaning up

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

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

Further information on handling

Ensure adequate ventilation of the storage area.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

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

Advice on storage compatibility

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

Safety Data Sheet

ETCHING GEL

(GHS_6100)

Page 3 of 6

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

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

8.2. Exposure controls



Protective and hygiene measures

When using do not eat or drink.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

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

Respiratory protection

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Jelly
Colour: blue

Test method

pH-Value: ca. 1

Changes in the physical state

Initial boiling point and boiling range: 100 °C

Flash point: not applicable

Lower explosion limits: not applicable

Upper explosion limits:

Ignition temperature: not applicable

Vapour pressure: 20 hPa
(at 23 °C)

Density: 1,4 g/cm³

Water solubility: easily soluble.

Vapour density: < 1

SECTION 10: Stability and reactivity

10.5. Incompatible materials

Alkalis (alkalis).

Safety Data Sheet

ETCHING GEL

(GHS_6100)

Page 4 of 6

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

LD50: Rat. >810mg/kg

Irritation and corrosivity

Irritant effect on the eye: Causes burns.

After skin contact: Causes burns.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name	Method	Dose	[h] [d]	Species	Source
7664-38-2	Phosphoric acid ... %; orthophosphoric acid					
	Acute fish toxicity	LC50	138 mg/l	96 h	Gambusia affinis	

Further information

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Remove according to the regulations.

Waste disposal number of waste from residues/unused products

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

SECTION 14: Transport information

Land transport (ADR/RID)

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



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

Other applicable information (land transport)

E1

Safety Data Sheet

ETCHING GEL

(GHS_6100)

Page 5 of 6

Marine transport (IMDG)

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



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

Other applicable information (marine transport)

E1

Air transport (ICAO)

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



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

Other applicable information (air transport)

E1
: Y841

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

SECTION 15: Regulatory information

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

National regulatory information

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

SECTION 16: Other information

Relevant R-phrases (Number and full text)

34 Causes burns.

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

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Safety Data Sheet

ETCHING GEL

(GHS_6100)

Page 6 of 6

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

Safety Data Sheet

TECO

(GHS_2222)

Page 1 of 5

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

1.1. Product identifier

TECO

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

1.3. Details of the supplier of the safety data sheet

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

SDS Emergency No. INFOTRAC (800) 535 - 5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory or skin sensitisation: Skin Sens. 1

Hazard Statements:

May cause respiratory irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word: Danger

Pictograms:



Hazard statements

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

Precautionary statements

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

chemical characterization (preparation): Acrylate.-resin.

Safety Data Sheet

TECO
(GHS_2222)

Page 2 of 5

Hazardous components

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

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

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

After contact with skin

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

After contact with eyes

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

After ingestion

Immediately get medical attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

High power water jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing. Provide adequate ventilation.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment.

6.3. Methods and material for containment and cleaning up

Collect mechanically.

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

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

Store only in original container.

SECTION 8: Exposure controls/personal protection

Safety Data Sheet

TECO

(GHS_2222)

Page 3 of 5

8.1. Control parameters

8.2. Exposure controls



Appropriate engineering controls

Ensure adequate ventilation of the storage area.

Protective and hygiene measures

When using do not eat or drink.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

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

Respiratory protection

The following must be prevented: inhalation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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

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/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

Safety Data Sheet

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

Aquaticity 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

TECO
(GHS_2222)

Page 5 of 5

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)

Page 1 of 6

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

1.1. Product identifier

Vitique Silane A

Product group: Endprodukt

CAS No: 64-17-5

Index No: 603-002-00-5 EC

No: 200-578-6

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

1.3. Details of the supplier of the safety data sheet

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

SDS Emergency No. INFOTRAC (800) 535 - 5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

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

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

Hazard categories:

Flammable liquid: Flam. Liq. 2

Skin corrosion/irritation: Skin Corr. 1B

Hazard Statements:

Highly flammable liquid and vapour.

Causes skin irritation.

2.2. Label elements

Signal word: Danger

Pictograms: GHS02



Hazard statements

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Ethanol.

Safety Data Sheet

Vitique Silane A

(GHS_6125)

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		
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

Safety Data Sheet

Vitique Silane A

(GHS_6125)

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/m ³	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
7664-38-2	Orthophosphoric acid	-	1		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL

8.2. Exposure controls



Protective and hygiene measures

When using do not eat or drink.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

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

Respiratory protection

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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

pH-Value: ca. 5

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)

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	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)

Page 5 of 6

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

Safety Data Sheet

Vitique Silane A
(GHS_6125)

Page 6 of 6

Other applicable information (air transport)

E2
: Y341

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

SECTION 15: Regulatory information

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

National regulatory information

SECTION 16: Other information

Relevant R-phrases (Number and full text)

11 Highly flammable.
34 Causes burns.

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

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

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

Safety Data Sheet

Vitique Silane B

(GHS_6126)

Page 1 of 4

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:	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

Safety Data Sheet

Vitique Silane B

(GHS_6126)

Page 2 of 4

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

Safety Data Sheet

Vitique Silane B

(GHS_6126)

Page 3 of 4

Changes in the physical state

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

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

heat.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

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

Decomposition under formation of: Methanol.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

LD50: (Rat): > 5000 mg/kg

Frequently or prolonged contact with skin may cause dermal irritation.

Irritation and corrosivity

Frequently or prolonged contact with skin may cause dermal irritation.

Irritant effect on the eye:

Sensitising effects

May cause sensitization by skin contact.

Additional information on tests

May produce an allergic reaction.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

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

12.2. Persistence and degradability

Product is partially biodegradable.

Further information

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

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

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

Waste disposal number of waste from residues/unused products

Safety Data Sheet

Vitique Silane B

(GHS_6126)

Page 4 of 4

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

SECTION 14: Transport information

Other applicable information

Not a hazardous material with respect to these transportation regulations.

SECTION 15: Regulatory information

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

National regulatory information

Water contaminating class (D): 2 - water contaminating

SECTION 16: Other information

Further Information

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