GB

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 27.01.2017

Version number 18

Revision: 27.01.2017

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

· 1.1 Product identifier

• Trade name: Solobond M

• 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.

· Application of the substance / the mixture Bonding

 \cdot 1.3 Details of the supplier of the safety data sheet

• Manufacturer/Supplier: VOCO GmbH Anton-Flettner-Str. 1-3 D-27472 Cuxhaven

• Further information obtainable from: Scientific department tel. +49 (0)4721-719-0

• 1.4 Emergency telephone number: Poison Control Center Mainz +49 (0)6131-19240

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

As a medical device the product is not subject to labelling regulations under 1272/2008/EC.

· Hazard pictograms GHS02, GHS07

· Hazard statements

Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation.

May cause an allergic skin reaction.

· Precautionary statements

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

Wear protective gloves / eye protection. Wear protective clothing.

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

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

If eye irritation persists: Get medical advice/attention.

· 2.3 Other hazards Use only for intended scope of application

- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
		50-100%
EINECS: 200-662-2	Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	
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Trade name: Solobond M

		Contd. of page
CAS: 1565-94-2	BIS GMA	10-25%
	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 868-77-9	2-hydroxyethyl methacrylate	5-10%
EINECS: 212-782-2	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	
	Acidic adhesive monomer	5-10%
	Skin Corr. 1B, H314 Eye Irrit. 2, H319	
	Catalyst	≤ 2.5%
	Aquatic Acute 1, H400 Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 7 H319	2,

SECTION 4: First aid measures

· 4.1 Description of first aid measures

- After inhalation: Seek medical treatment in case of complaints.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:
- Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation
- · 6.2 Environmental precautions: No special measures required.
- · 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- · 6.4 Reference to other sections See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling
- For dental use only.
- Prevent formation of aerosols.
- · Information about fire and explosion protection: Keep ignition sources away Do not smoke.

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Trade name: Solobond M

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: See storage instructions on package
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:
- *The usual precautionary measures are to be adhered to when handling chemicals. Avoid contact with the eyes and skin.*
- · Protection of hands:



Protective gloves

· Material of gloves Not applicable.

• Eye protection: Safety glasses

SECTION 9: Physical an	a chemical properties
• 9.1 Information on basic physi	ical and chemical properties
· General Information	
· Appearance:	
Form:	Fluid
Colour:	Yellow
· Odour:	Characteristic
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range	: Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	<15 °C
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Density at 20 °C:	0.9 g/cm ³
· Solubility in / Miscibility with	
water:	Not miscible or difficult to mix.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.

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Trade name: Solobond M

• 9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

· 10.2 Chemical stability

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

67-64-1 acetone

Oral LD50 5800 mg/kg (rat)

Dermal LD50 20000 mg/kg (rabbit)

Acidic adhesive monomer

$Oral \quad LD50 > 2000 mg/kg (rat)$

Primary irritant effect:

· Skin corrosion/irritation

- Testing according to ISO 10993-1/10993-10 showed no skin irritation for this product when fully cured Causes skin irritation.
- Serious eye damage/irritation Causes serious eye irritation.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- May cause an allergic skin reaction.
- \cdot CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- \cdot Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

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SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

• Recommendation Smaller quantities can be disposed of with household waste.

· Uncleaned packaging:

• Recommendation: Disposal must be made according to official regulations.

14.1 UN-Number	
ADR, IMDG, IATA	UN2924
14.2 UN proper shipping name	
ADR	2924 FLAMMABLE LIQUID, CORROSIVE, N.O.,
	(ACETONE, Acidic adhesive monomer)
IMDG, IATA	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ACETON
	Acidic adhesive monomer)
14.3 Transport hazard class(es)	
ADR	
Class	3 Flammable liquids.
Label	3+8
IMDG	
Class Label	3 Flammable liquids. 3/8
IATA	
Class	3 Flammable liquids.
Label	3 (8)
14.4 Packing group	
ADR, IMDG, IATA	II
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Warning: Flammable liquids.
Danger code (Kemler): EMS Number:	338 E E S C
EMS Number: Stowage Category	F-E,S-C B
Stowage Category Stowage Code	в SW2 Clear of living quarters.
14.7 Transport in bulk according to Anne	
Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	1L

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Trade name: Solobond M		
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• Transport category • Tunnel restriction code	2 D/E	
· UN "Model Regulation":	UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ACETONE, ACIDIC ADHESIVE MONOMER), 3 (8), II	

SECTION 15: Regulatory information

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

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· Seveso category P5c FLAMMABLE LIQUIDS

• Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t

• Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t

• REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Scientific department

· Contact: Tel.: +49 (0)4721-719-0

· Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids - Category 2 Acute Tox. 4: Acute toxicity - Category 4 Skin Corr. 1B: Skin corrosion/irritation - Category 1B Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Skin Sens. 1: Skin sensitisation – Category 1 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 \cdot * Data compared to the previous version altered.

Printing date 23.02.2017

Version number 15

Revision: 23.02.2017

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

· 1.1 Product identifier

· Trade name: Vococid

• 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.

· Application of the substance / the mixture Etching agent

 \cdot 1.3 Details of the supplier of the safety data sheet

• Manufacturer/Supplier: VOCO GmbH Anton-Flettner-Str. 1-3 D-27472 Cuxhaven

• Further information obtainable from: Scientific department tel. +49 (0)4721-719-0

• 1.4 Emergency telephone number: Poison Control Center Mainz +49 (0)6131-19240

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

As a medical device the product is not subject to labelling regulations under 1272/2008/EC.

- · Hazard pictograms GHS05
- · Hazard statements

Causes severe skin burns and eye damage.

· Precautionary statements

Wear protective gloves / eye protection.

Wear protective clothing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards Use only for intended scope of application

- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

• Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 7664-38-2	phosphoric acid	Skin Corr. 1B, H314
EINECS: 231-633-2		

• Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

• General information: Immediately remove any clothing soiled by the product.

• After skin contact: Immediately wash with water and soap and rinse thoroughly.

· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

• After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

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25-50%

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Trade name: Vococid

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- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available. • 4.3 Indication of any immediate medical attention and special treatment needed
- *No further relevant information available.*

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.

· 6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water. Dilute with plenty of water.

• 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralising agent.

Dispose contaminated material as waste according to item 13.

• 6.4 Reference to other sections
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling For dental use only.

- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: See storage instructions on package
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep container tightly sealed.

• 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals. Immediately remove all soiled and contaminated clothing Avoid contact with the eyes and skin.

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Trade name: Vococid

• *Respiratory protection:* Not required. • *Protection of hands:*



Protective gloves

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Eye protection: Safety glasses

SECTION 9: Physical and ch	hemical properties	
• 9.1 Information on basic physical a		
· General Information		
· Appearance:		
Form:	gel	
Colour:	Light blue	
· Odour:	Odourless	
· Odour threshold:	Not determined.	
· pH-value at 20 °C:	0.8	
· Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	Undetermined.	
· Flash point:	Not applicable.	
· Flammability (solid, gaseous):	Not applicable.	
• Decomposition temperature:	Not determined.	
· Self-igniting:	Product is not selfigniting.	
• Danger of explosion:	Product does not present an explosion hazard.	
· Density at 20 °C:	1.28 g/cm ³	
Relative density	Not determined.	
· Vapour density	Not determined.	
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
water:	Fully miscible.	
· Partition coefficient (n-octanol/wat	ter): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
• 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

· 10.2 Chemical stability

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.

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Trade name: Vococid

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· 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

• 11.1 Information on toxicological effects

· Acute toxicity Based on available data, the classification criteria are not met.

• Primary irritant effect:

· Skin corrosion/irritation

Causes severe skin burns and eye damage.

 \cdot Serious eye damage/irritation

Causes serious eye damage. • **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

• CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

• Germ cell mutagenicity Based on available data, the classification criteria are not met.

· Carcinogenicity Based on available data, the classification criteria are not met.

• Reproductive toxicity Based on available data, the classification criteria are not met.

• STOT-single exposure Based on available data, the classification criteria are not met.

• **STOT-repeated exposure** Based on available data, the classification criteria are not met.

• Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

• Aquatic toxicity: No further relevant information available.

· 12.2 Persistence and degradability No further relevant information available.

• 12.3 Bioaccumulative potential No further relevant information available.

· 12.4 Mobility in soil No further relevant information available.

• Additional ecological information:

· General notes:

Must not reach sewage water or drainage ditch undiluted or unneutralised. Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

· 12.5 Results of PBT and vPvB assessment

• **PBT:** Not applicable.

· vPvB: Not applicable.

· 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packaging:

• Recommendation: Disposal must be made according to official regulations.

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

* *		
14.1 UN-Number ADR, IMDG, IATA	UN1805	
14.2 UN proper shipping name	<u>-</u>	
ADR	1805 PHOSPHORIC ACID, SOLUTION	
IMDG, IATA	PHOSPHORIC ACID, SOLUTION	

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· 14.3 Transport hazard class(es)	-
· ADR, IMDG, IATA	
· Class	8 Corrosive substances.
· Label	8
· 14.4 Packing group	-
· ADR, IMDĞ, IATA	III
· 14.5 Environmental hazards:	
• Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Corrosive substances.
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups	Acids
· Stowage Category	A
· 14.7 Transport in bulk according to Ann	ex II of
Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Transport category	3
· Tunnel restriction code	Ε
· UN "Model Regulation":	UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III

SECTION 15: Regulatory information

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

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Scientific department

- · Contact: Tel.: +49 (0)4721-719-0
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1 •* Data compared to the previous version altered.

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