

SAFETY DATA SHEETS

This SDS packet was issued with item:

077110190

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

077109309 077109952 077109960 077109986 077110141 077110158 077110182

VOCO

Material-Safety Data Sheet (Directive 91/155/EEC)

1	<u>Names of Material, Preparation and Company</u>				
	trade name:	Admira/Admira Bond			
	manufacturer/supplier	VOCO GmbH			
	address:	Anton-Flettner-Str. 1-3 D - 27472 Cuxhaven			
	australian contact:	VOCO Australia	Emergency.: 0448 102 804		
	australian address:	PO Box 209 Osborne Park WA 6917	Fax: (08) 9440 1874		
2	<u>Composition/Details on Components</u>				
	preparation:	Mixture of different dimethacrylates, ormocers, silicate fillers, catalyst system and auxiliaries			
	description:	Light-curing filling material based on ormocers			
	hazardous ingredients:				
	name	CAS-No.	content	danger symbol	R-categories
	UDMA	41137-60-4	14-18 %	Xi	R36/37/38
	BIS-GMA	1565-94-2	8-10 %	Xi	R36/37/38
	acetone (bond)	67-64-1	50-55 %	F	R11
3	<u>Hazards Identification</u>				
	designation of risk:	Xi, irritant			
	this product is hazardous (criteria of NOHSC)				
	it is a dangerous good (ADG Code)				
	poisons schedule – none (Australia’s SUSDP)				
4	<u>First-Aid-Measures</u>				
	general information:				
	after inhalation:	fresh air, in case of indisposition or nausea contact a doctor			
	after skin contact:	rinse thoroughly with plenty of water			
	after eye contact:	rinse thoroughly with water, contact a doctor			
	after swallowing:	contact immediately a physician			
	information for the attending physician:	material for dental or laboratory use only			
5	<u>Fire Fighting Measures</u>				
	suitable fire extinguishing agents:	foam, carbon dioxide, powder fire extinguishers			
	unsuitable fire extinguishing agents:	water			
	particular hazards:	none			
	fire fighting protective equipment:	no data available			
6	<u>Measures in Case of Unintended Release</u>				
	measures related to persons:	avoid eye and/or skin contact			
	environmental measures:	do not let the material get in contact with sewerage systems			
	procedures of cleaning/uptake	take up mechanically, use common absorbents			
	additional information:	none			
7.	<u>Handling and Storage</u>				
7.1	handling:	only by qualified staff in dental offices or dental laboratories			
	instructions for safe handling:	see instructions for use			
	instructions on fire and explosion protection	keep away from ignition sources			
7.2	Storage:	tightly closed at room temperature			
	demands on storerooms and containers	store in good ventilated rooms and areas			
	indications and prohibitions of storage together with other materials:	do not store together with food			
	further details on storage conditions:	keep out of the reach of children			

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8	<u>Exposition Restriction and Personal Protective Equipment</u>			
8.1	additional information on the equipment of technical facilities: none			
8.2	components with limiting values related to place of work: none			
	CAS-No.	name	kind	value unit
	additional information: hazards related to place of work are not known.			
8.3	personal protective equipment:		dental office or laboratory working clothes	
	breathing protection		do not breathe or inhale vapour or dust	
	hand protection:		use of protective gloves is recommended	
	eye protection:		use of protective glasses is recommended	
	body protection:		dental working dress	
	protective and hygiene measures:		washing hands	
9	<u>Physical and Chemical Properties</u>			
9.1	appearance:		paste	
	form:		pasty	
	colour:		10 different shades	
	odour:		acrylate-like	
9.2	safety data:	tested acc. to:		
	pH upon delivery:		no data available	
	pH of 10g/l H ₂ O and 20°C:		no data available	
	change of state:		no data available	
	boiling point/area:		no data available	°C
	melting point/area:		no data available	°C
	flash point:		no data available	°C
	inflammability:		no data available	
	ignition temperature:		no data available	°C
	autoignition:		no data available	
	fire advancing properties:		no data available	
	explosion hazards:		no data available	
	explosion limits: LEL:		UEL: no data available	
	vapour pressure (°C)		no data available	
	density (°C)		no data available	hPa
	bulk density:		no data available	
	solubility in water (20°C) (°C):		no data available	mg/l
	in (°C)		no data available	mg/l
	solubility in fat:		no data available	
	distribution coefficient n-octanol/water:		no data available	
	viscosity (°C):		no data available	
	solvent separation test:		no data available	%
	solvent content:		no data available	%
9.3	further particulars:		none	
10	<u>Stability and Reactivity</u>			
	conditions to be avoided:		light exposition, heat	
	materials to be avoided:		radical initiators, e.g. peroxides	
	hazardous products of decomposition:		HCN, cyanides	
	further particulars:		none	

EC-Safety Data Sheet
according to: 91/155/EEC
trade name: Admira/Admira Bond

page 2 of 4
date: 07.07.95/01
revised on: 8/2/07

VOCO
Material-Safety Data Sheet (Directive 91/155/EEC)

11. Toxicological Data						
11.1 toxicological Test: no data available						
acute toxicity: no data available						
LD ₅₀ /LC ₅₀ :	component	kind	value	species	method of determination	
specific symptoms in animal test:				no data available		
irritant effect/corrosive action:				no data available		
sensitization:				no data available		
effects of repeated exposure or overexposure				no data available		
(subacute or chronic toxicity):				no data available		
carcinogenic and mutagenic effects hazardous to reproduction:				no data available		
other particulars:				no data available		
11.2 practical experience:				no data available		
observations relevant to classifications:				no data available		
other observations:				no data available		
11.3 general remarks: during long-standing product application risks have not become known.						
12 Ecological Data						
12.1 information on elimination: no data available						
procedure		analytic method		degree of elimination		classification
evaluation:		no data available				
additional information:		no data available				
12.2 behaviour in environmental compartments: no data available						
mobility and bioaccumulation potential:		no data available				
additional information:		none				
12.3 environmental toxic effects: no data available						
aquatic toxicity:		no data available				
organism	test period	test method	result	assessment		
behaviour in sewage plants:		no data available				
respiratory inhibition of local vitalised sludge:		no data available				
12.4 additional information:				none		
CSB-value:		no data available			mg/g	
BSB ₅ -value:		no data available			mg/g	
AOX-indication:		no data available				
contains the following heavy metals and compounds (corresponding to guideline 76/464/EEC) according to preparation formula: none						
general information: none						
13 Disposal Instructions						
13.1 product: Admira						
recommendation: obey local and governmental regulations						
waste category	waste name		accountability			
13.2 uncleaned packing material:		obey local and governmental regulations				
recommendation:		obey local and governmental regulations				
cleaning agents:		common cleansing agents for the laboratory				

VOCO

Material-Safety Data Sheet (Directive 91/155/EEC)

14	<u>Particulars on Transport</u>		
14.1	land carriage:		
	ADR/RID/GGVS/GGVE-class:	figure/letter: risk no.:	material no.:
	warning label:		
	designation of goods:		
	remarks:		
14.2	inland transport by ship:		
	ADN/ADNR-class:	figure/letter:	category:
	designation of goods:		
	remarks:		
14.3	see transport:		
	IMDG/GGV sea class:	UN-No.:	PG:
	EMS:	MFAG:	
	marine pollutant:		
	correct technical name:		
	remarks:		
14.4	air transport:		
	ICAO/IATA-class:	UN/ID-No.:	PG:
	correct technical name:		
	remarks:		
14.5	further particulars: No hazardous goods within the meaning of transport regulations		

15	<u>Regulation</u>		
15.1	marking: acc. to governmental regulations concerning declaration of dangerous chemicals no marking is prescribed		
	danger symbol and designation: none		
	contains:		
	R-categories:	none	
	S-categories:	none	
	special marking of particular preparations: none		
15.2	national regulations: acc. to article 10 of Directive 66/379 EEC and 67/548 EEC		
	restrictions of employment: none		
	instructions in case of interference: none		
	classification acc. VbF: not applicable		
	technical instruction air: not applicable		
	water pollution class: 1 (self estimation)		
	other regulations, restrictions and prohibitions: Directive 91/155 EEC; medical product acc. to 93/42 EEC (medical products).		
16	<u>Other Particulars</u>		
	All information above has been given according to our present state of knowledge. It has been compiled to the best of our knowledge. The above -mentioned data do not represent a guarantee on characteristics. They only describe the safety requirements with regard to our products. They do not represent an assurance of product characteristics in the meaning of guarantees.		

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 03/21/2017

1 Identification

- **Product identifier**
- **Trade name:** Admira Bond
- **Application of the substance / the mixture** Dental bonding material
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
VOCO GmbH
Anton-Flettner-Str. 1-3
D-27472 Cuxhaven
- **Information department:** Scientific department tel. +49 (0)4721-719-0
- **Emergency telephone number:** Scientific department tel. +49 (0)4721-719-0

2 Hazard(s) identification

- **Classification of the substance or mixture**



Flame

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



Corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



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

- **Label elements**
- **Hazard pictograms** GHS02, GHS05, GHS07
- **Signal word** Danger
- **Hazard statements**
Highly flammable liquid and vapor.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
- **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Wear protective gloves / eye protection.
Wear protective gloves.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

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Trade name: **Admira Bond**

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· Dangerous components:		
67-64-1	acetone Flam. Liq. 2, H225 Eye Irrit. 2A, H319; STOT SE 3, H336	50-100%
	Ormocer Skin Irrit. 2, H315; Eye Irrit. 2A, H319	10-25%
1565-94-2	BIS GMA Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	5-10%
868-77-9	2-hydroxyethyl methacrylate Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	5-10%
	Acidic adhesive monomer Skin Corr. 1B, H314; Eye Dam. 1, H318	5-10%

4 First-aid measures

- **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. Then consult a doctor.
- **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

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

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** For dental use only.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** See storage instructions on package

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- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components 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 that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Avoid contact with the eyes and skin.
- **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

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Fluid
Color:	Yellowish
Odor:	Characteristic
- **pH-value at 20 °C (68 °F):** 2.1
- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
- **Flash point:** <10 °C (<50 °F)
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Density at 20 °C (68 °F):** 0.92 g/cm³ (7.677 lbs/gal)
- **Solubility in / Miscibility with Water:** Partly miscible.
- **Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.

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· **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

67-64-1 acetone

Oral	LD50	5800 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)

Acidic adhesive monomer

Oral	LD50	> 2000 mg/kg (rat)
------	------	--------------------

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Corrosive
Irritant
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|---|---|
| · UN-Number | UN2924 |
| · DOT, ADR, IMDG, IATA | |
| · UN proper shipping name | Flammable liquids, corrosive, n.o.s. (Acetone, Acidic adhesive monomer) |
| · DOT | 2924 Flammable liquids, corrosive, n.o.s. (Acetone, Acidic adhesive monomer) |
| · ADR | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ACETONE, Acidic adhesive monomer) |
| · IMDG, IATA | |
| · Transport hazard class(es) | |
| · DOT | |
|  |  |
| · Class | 3 Flammable liquids |
| · Label | 3, 8 |
| · ADR | |
|  |  |
| · Class | 3 Flammable liquids |
| · Label | 3+8 |
| · IMDG | |
|  |  |
| · Class | 3 Flammable liquids |
| · Label | 3/8 |
| · IATA | |
|  |  |
| · Class | 3 Flammable liquids |
| · Label | 3 (8) |

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Trade name: **Admira Bond**

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· Packing group	
· DOT, ADR, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	338
· EMS Number:	F-E,S-C
· Stowage Category	B
· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	UN 2924 FLAMMABLE LIQUIDS, CORROSIVE, N.O.S. (ACETONE, ACIDIC ADHESIVE MONOMER), 3 (8), II

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act):

67-64-1 acetone

1565-94-2 BIS GMA

868-77-9 2-hydroxyethyl methacrylate

Acidic adhesive monomer

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed

· Cancerogenity categories

· EPA (Environmental Protection Agency)

67-64-1 acetone

I

· TLV (Threshold Limit Value established by ACGIH)

67-64-1 acetone

A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms GHS02, GHS05, GHS07

· Signal word Danger

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Trade name: Admira Bond

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· Hazard statements

Highly flammable liquid and vapor.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Wear protective gloves / eye protection.
Wear protective gloves.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
Dispose of contents/container in accordance with local/regional/national/international regulations.

16 Other information

· Department issuing SDS: Scientific department**· Contact:** Tel.: +49 (0)4721-719-0**· Date of preparation / last revision** 03/21/2017 / 10**· 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
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
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
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· * Data compared to the previous version altered.

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