

Safety Data Sheet

according to Regulation (EC) No 1907/2006

JENTNER
PLATING TECHNOLOGY**Vivacolor Bond**

Print date: 28.04.2015

Product code: 152

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Vivacolor Bond

Gesswein Product # 8213414

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

Processing aid

1.3. Details of the supplier of the safety data sheet

Company name: Jentner Plating Technology GmbH
 Street: Sandweg 20
 Place: D-75179 Pforzheim
 Telephone: +49 (0)7231 418094 0 Telefax: +49 (0)7231 418094 77
 e-mail: info@jentner.de
 Contact person: Chemistry Department.
 Internet: www.jentner.de
 Responsible Department: The respondent department 0049 7231 280980 is reachable at our usual opening times on Mo-Fr between 08:00 am and 05:00 pm

Poison Information Center of the University of Freiburg.

1.4. Emergency telephone number:

0049 (0)761 19240 - 24 h german and english

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Indications of danger: Xn - Harmful, Xi - Irritant, N - Dangerous for the environment
 R phrases:
 Possible risk of impaired fertility.
 Harmful by inhalation.
 Irritating to eyes, respiratory system and skin.
 May cause sensitisation by skin contact.
 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

Hazard categories:
 Acute toxicity: Acute Tox. 4
 Acute toxicity: Acute Tox. 4
 Skin corrosion/irritation: Skin Irrit. 2
 Serious eye damage/eye irritation: Eye Dam. 1
 Respiratory/skin sensitization: Skin Sens. 1
 Reproductive toxicity: Repr. 2
 Specific target organ toxicity - single exposure: STOT SE 3
 Hazardous to the aquatic environment: Aquatic Chronic 2
 Hazard Statements:
 Harmful if swallowed or if inhaled.
 Causes skin irritation.
 May cause an allergic skin reaction.
 Causes serious eye damage.
 May cause respiratory irritation.
 Suspected of damaging fertility.
 Toxic to aquatic life with long lasting effects.

2.2. Label elements

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Hazardous components which must be listed on the label

N,N-Dimethylacrylamid
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
2,2-Dimethoxy-1,2-diphenylethan-1-on
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane

Signal word:

Danger

Pictograms:

GHS05-GHS07-GHS08-GHS09



Hazard statements

H302+H332	Harmful if swallowed or if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P302+P352	IF ON SKIN: Wash with plenty of water.
P362+P364	Take off contaminated clothing and wash it before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to an officially registered waste disposal company.

SECTION 3: Composition/information on ingredients

3.2. Mixtures



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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		
227-561-6	exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-ylacrylat	25-50 %
5888-33-5	Xi - Irritant, N - Dangerous for the environment R36/37/38-51-53	
	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, Aquatic Chronic 2; H315 H319 H335 H411	
220-237-5	N,N-Dimethylacrylamid	10-25 %
2680-03-7	T - Toxic, Xn - Harmful, Xi - Irritant R21-23-36	
	Acute Tox. 3, Acute Tox. 3, Acute Tox. 4, Eye Irrit. 2; H311 H331 H302 H319	
278-355-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	2,5-10 %
75980-60-8	Repr. Cat. 3 R62	
015-203-00-X	Repr. 2; H361f	
246-386-6	2,2-Dimethoxy-1,2-diphenylethan-1-on	2,5-10 %
24650-42-8	N - Dangerous for the environment R43-50-53	
	Skin Sens. 1, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H317 H400 H410	
219-784-2	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2,5-10 %
2530-83-8	Xi - Irritant R41	
	Eye Dam. 1; H318	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest.
 Get medical advice/attention.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.
 If skin irritation or rash occurs: Get medical advice/attention.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

Do NOT induce vomiting.
 Call a physician in any case!

4.2. Most important symptoms and effects, both acute and delayed

Symptoms of poisoning may develop several hours following exposure. Victim should be under medical observation for at least 48 hours after exposure.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media

Carbon dioxide (CO₂).Foam.Extinguishing powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to the escape of irritating gases and vapours.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Do not allow water used to extinguish fire to enter drains or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from unprotected people. Keep upwind.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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).
Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with skin and eyes.
General Precautions for safe handling of chemicals.

Further information on handling

Provide for good ventilation when repacking damaged packing material.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Only use containers specifically approved for the substance/product.
Handle and open container with care.

Further information on storage conditions

Store in a cool dry place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2. Exposure controls

Appropriate engineering controls

Technical ventilation of workplace

Protective and hygiene measures

General Precautions for safe handling of chemicals.
Do not eat, drink, smoke or sneeze at the workplace.
Avoid contact with skin, eyes and clothes.

Eye/face protection

Wear suitable protective clothing and eye/face protection.

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Hand protection

The material of the gloves should be enough tight and firm against the used substance.
After cleaning apply high-fat content skin care cream.

Skin protection

According to danger wear tight, adequate long apron and boots or suitable chemical protection suit.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	whitish
Odour:	characteristic

Test method

pH-Value:	not applicable
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Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	> 93 °C
Sublimation point:	not determined
Flash point:	77 °C

Explosive properties

not explosive.

Ignition temperature:	not determined
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Oxidizing properties

Not oxidizing.

Vapour pressure:	not determined
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Density:	1,4 g/cm ³
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Water solubility:	Immiscible
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Solubility in other solvents

not determined

Solvent separation test:	not determined
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9.2. Other information

Solid content:	5,8 %
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SECTION 10: Stability and reactivity

10.2. Chemical stability

Stable under normal temperature and compression conditions. Light sensitive.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.5. Incompatible materials

Alkalis (alkalis), concentrated.
Oxidizing agents, strong.

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Strong acid

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed or if inhaled.

CAS No	Chemical name	Exposure routes	Method	Dose	Species	Source
5888-33-5	exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-ylacrylat	oral	LD50	4890 mg/kg	Rat	Gestis
		dermal	LD50	>5000 mg/kg	Rabbit	Gestis
2680-03-7	N,N-Dimethylacrylamid	oral	LD50	316 mg/kg	Rat	Gestis
		dermal	LD50	519 mg/kg	Rabbit	Gestis
		inhalative vapour	ATE	3 mg/l		
		inhalative aerosol	ATE	0,5 mg/l		
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	oral	LD50	24200 mg/kg	Rat	
		dermal	LD50	4250 mg/kg	Rabbit	

Irritation and corrosivity

Causes mild skin irritation.

Causes serious eye damage.

Sensitising effects

May cause an allergic skin reaction.

STOT-single exposure

May cause respiratory irritation.

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging fertility.

Aspiration hazard

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

SECTION 12: Ecological information

12.2. Persistence and degradability

This information is not available.

12.3. Bioaccumulative potential

This information is not available.

12.4. Mobility in soil

This information is not available.

12.5. Results of PBT and vPvB assessment

This information is not available.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of this material and its container to hazardous or special waste collection point.

Waste disposal number of waste from residues/unused products

110198 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); other wastes containing dangerous substances
Classified as hazardous waste.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:

3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Isobornylacrylat, Ethanone, 2,2-dimethoxy-1,2-diphenyl)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 601

Limited quantity:

5 L

Transport category:

3

Hazard No:

90

Tunnel restriction code:

E

Inland waterways transport (ADN)

14.1. UN number:

3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Isobornylacrylat, Ethanone, 2,2-dimethoxy-1,2-diphenyl)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 601

Limited quantity:

5 L

Marine transport (IMDG)

14.1. UN number:

3082

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14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Isobornylacrylate, Ethanone, 2,2-dimethoxy-1,2-diphenyl)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9



Special Provisions: 274, 335

Limited quantity: 5 L

EmS: F-A, S-F

Air transport (ICAO)

14.1. UN number: 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Isobornylacrylate, Ethanone, 2,2-dimethoxy-1,2-diphenyl)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9



Special Provisions: A97 A158

Limited quantity Passenger: 30 kg G

IATA-packing instructions - Passenger: 964

IATA-max. quantity - Passenger: 450 L

IATA-packing instructions - Cargo: 964

IATA-max. quantity - Cargo: 450 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



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): 3 - highly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Relevant R-phrases (Number and full text)

- 21 Harmful in contact with skin.
- 23 Toxic by inhalation.
- 36 Irritating to eyes.
- 36/37/38 Irritating to eyes, respiratory system and skin.
- 41 Risk of serious damage to eyes.
- 43 May cause sensitisation by skin contact.

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- | | |
|----|---|
| 50 | Very toxic to aquatic organisms. |
| 51 | Toxic to aquatic organisms. |
| 53 | May cause long-term adverse effects in the aquatic environment. |
| 62 | Possible risk of impaired fertility. |

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

- | | |
|-----------|---|
| H302 | Harmful if swallowed. |
| H302+H332 | Harmful if swallowed or if inhaled. |
| H311 | Toxic in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H335 | May cause respiratory irritation. |
| H361f | Suspected of damaging fertility. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

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