

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008 This SDS is for generic information purposes and does not reflect required country specific information for OEL

PANDSER® EPDM ADHESIVE & SEALANT
Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020
Revision Number 1

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

1.1. Product Identifier

Product Name PANDSER® EPDM ADHESIVE & SEALANT
Pure substance/mixture Mixture

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

Recommended use Adhesives and/or sealants.
Uses advised against Not to be used in production of toys or childcare articles.

1.3. Details of the supplier of the safety data sheet

Berdal Rubber & Plastics B.V.
Bedrijvenpark Twente 193
7602 KG Almelo
Nederland

Tel: +31 (0)546 572672
Fax: +31 (0)546 575635

E-Mail: verkoop@berdal.com

1.4. Emergency telephone number

Emergency Telephone: +31 (0)546-572 672 (Mon - Fri 08:00 - 17:00) (*Office hours*)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Not classified

2.2. Label Elements

Not classified

Signal word
None

Hazard statements Not classified

EU Specific Hazard Statements

EUH208 - Contains Dioctyltinbis(acetylacetonate). May produce an allergic reaction
EUH210 - Safety data sheet available on request

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

2.3. Other Hazards

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing

PBT & vPvB

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	EC No.	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	REACH Registration Number
Trimethoxyvinylsilane	220-449-8	2768-02-7	1 - <2.5	Acute Tox. 4 (H332) Flam. Liq. 3 (H226)		01-211951321552-XXXX
Diocetyl tinbis(acetylacetonate)	483-270-6	54068-28-9	0.1- <1	STOT SE 2 (H371) Skin Sens. 1 (H317)	Skin Sens. 1 :: C>=5%	01-000002019967-XXXX

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

Note: ^ indicates not classified, however, the substance is listed in section 3 as it has an OEL

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. If symptoms persist, call a doctor.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Call a doctor immediately. If swallowed, rinse mouth with water (only if the person is conscious). Small amounts of toxic methanol are released by hydrolysis.

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

Symptoms None known.

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam.

Unsuitable extinguishing media Full water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the Thermal decomposition can lead to release of irritating gases and vapours. **chemical**

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂). Hydrocarbons.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

Other information Ventilate the area. Prevent further leakage or spillage if safe to do so.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent product from entering drains. Do not allow to enter into soil/subsoil. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Do not scatter spilled material with high pressure water streams.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep at temperatures between 5 and 35 °C. Keep away from food, drink and animal feedingstuffs. Protect from moisture.

7.3. Specific end use(s)

Specific Use(s)
Adhesives and/or sealants.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other information Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing

Only European Community Occupational Exposure Limits will be shown in this document. Please refer to regional SDS for further information.

Chemical name	European Union
Methyl alcohol 67-56-1	TWA: 200 ppm TWA: 260 mg/m ³ *

Derived No Effect Level (DNEL) No information available

Derived No Effect Level (DNEL)

Trimethoxyvinylsilane (2768-02-7)

Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Systemic health effects Long term	Inhalation	27,6 mg/m ³	
worker Systemic health effects Long term	Dermal	3,9 mg/kg bw/d	

Diocetylindis(acetylacetonate) (54068-28-9)

Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Long term Systemic health effects worker	Dermal	0.07 mg/kg bw/d	
Long term Systemic health effects worker	Inhalation	84 mg/m ³	
Short term Systemic health effects worker	Inhalation	84 mg/m ³	
Long term Short term Local health effects worker	Inhalation	0.091 mg/m ³	

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

Derived No Effect Level (DNEL)			
Trimethoxyvinylsilane (2768-02-7)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Systemic health effects Long term	Inhalation	18,9 mg/m ³	
Consumer Systemic health effects Long term	Dermal	7,8 mg/kg bw/d	
Consumer Systemic health effects Long term	Oral	0,3 mg/kg bw/d	

Predicted No Effect Concentration No information available.

(PNEC)

Predicted No Effect Concentration (PNEC)	
Trimethoxyvinylsilane (2768-02-7)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.34 mg/l
Marine water	0.034 mg/l
Microorganisms in sewage treatment	110 mg/l

Diocetyl tinbis(acetylacetonate) (54068-28-9)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	26 µg/l
Marine water	2.6 µg/l
Freshwater - intermittent	260 µg/l
Sewage treatment plant	1 mg/l
Freshwater sediment	0.155 mg/kg dry weight
Marine sediment	0.0155 mg/kg dry weight
Soil	0.0158 mg/kg dry weight

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

- Eye/face protection** Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166
- Hand protection** Wear suitable gloves. Recommended Use: Neoprene™. Nitrile rubber. Butyl rubber. Glove thickness > 0.7mm. The breakthrough time for the mentioned glove material is in general greater than 480 min. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374
- Skin and body protection** None under normal use conditions.
- Respiratory protection** In case of inadequate ventilation wear respiratory protection. Wear a respirator conforming to EN 140 with Type A/P2 filter or better. Ensure adequate ventilation, especially in confined areas.
- Recommended filter type:** Organic gases and vapours filter conforming to EN 14387. White. Brown.

Environmental exposure controls Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

Physical state	Solid
Appearance	Paste
Colour	See section 1 for more information
Odour	Characteristic
Odour threshold	No information available

Property	Values	Remarks • Method
pH	Not applicable .	
Melting point / freezing point	No data available	
Boiling point / boiling range	No data available	
Flash point	> 60 °C	
Evaporation rate	No data available	
Flammability (solid, gas)	Not applicable for liquids .	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapour pressure	No data available	
Relative vapour density	No data available	
Relative density	No data available	
Water solubility	Product cures with moisture	
Solubility(ies)	No data available	
Partition coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Kinematic viscosity	> 21 mm ² /s	
Dynamic viscosity	No data available	
Explosive properties	No data available	
Oxidising properties	No data available	

9.2. Other information

Solid content (%)	No information available
VOC Content (%)	No information available
Density	1.48 g/cm ³

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Product cures with moisture.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Protect from moisture. Product cures with moisture.

10.5. Incompatible materials

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions. Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

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

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

Skin contact Based on available data, the classification criteria are not met. May cause sensitisation in susceptible persons.

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

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (dermal) 19,570.10 mg/kg

ATEmix (inhalation-vapour) 975.1499 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trimethoxyvinylsilane 2768-02-7	LD50 = 7120 -7236 mg/kg (Rattus) OECD 401	= 3360 µL/kg (Oryctolagus cuniculus)	LC50 (4hr) 16.8 mg/l (Rattus) OECD TG 403
Diocetylbinbis(acetylacetonate) 54068-28-9	LD50 =2500 mg/kg (Rattus)	LD50 >2000 mg/kg (Rattus)	

Delayed and immediate effects as well as chronic effects from short and long-term exposure

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Component Information					
Trimethoxyvinylsilane (2768-02-7)					
Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit	Dermal	0.5 mL	24 hours	Non-irritant

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Component Information					
Trimethoxyvinylsilane (2768-02-7)					
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	eye		24 hours	Non-irritant

Respiratory or skin sensitisation OECD Test No. 406: Skin Sensitisation. No sensitisation responses were observed. No classification is proposed, based on conclusive negative data. May cause sensitisation in susceptible persons.

Product Information			
Method	Species	Exposure route	Results
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	No sensitisation responses were observed
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	No sensitisation responses were observed

Component Information			
Trimethoxyvinylsilane (2768-02-7)			
Method	Species	Exposure route	Results
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	Not a skin sensitiser

Diocetyl tinbis(acetylacetonate) (54068-28-9)			
Method	Species	Exposure route	Results
OECD Test No. 429: Skin Sensitisation: Local Lymph Node Assay		Dermal	> 5 % sensitising

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

Component Information		
Trimethoxyvinylsilane (2768-02-7)		
Method	Species	Results
OECD Test No. 471: Bacterial Reverse Mutation Test	in vitro	Not mutagenic

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

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

Component Information		
Trimethoxyvinylsilane (2768-02-7)		
Method	Species	Results

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test	Rat	Not Classifiable
----------------------------------------------------------------------------------------------------------------------	-----	------------------

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.

Component Information					
Trimethoxyvinylsilane (2768-02-7)					
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 413: Sub-chronic Inhalation Toxicity: 90-day Study	Rat	Inhalation vapour		90 days	0.058 NOAEL

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

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea	M-Factor	M-Factor (long-term)
Trimethoxyvinylsilane 2768-02-7	EC 50 (72h) > 957 mg/l (Desmodesmus subspicatus) EU Method C.3	LC50 (96h) = 191 mg/l (Oncorhynchus mykiss)	-	EC50(48hr) 168.7mg/l (Daphnia magna)		
Diocetyl tinbis(acetylacetonate) 54068-28-9	-	LC50 (96h) = 86 mg/L (Static)	-	EC50 (48h) = 58.6 mg/L (Daphnia magna)		

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

12.2. Persistence and degradability

Persistence and degradability No information available.

Component Information

Trimethoxyvinylsilane (2768-02-7)

Method	Exposure time	Value	Results
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F)	28 days	BOD	51 % Not readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient	Bioconcentration factor (BCF)
Trimethoxyvinylsilane 2768-02-7	1.1	-

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Trimethoxyvinylsilane 2768-02-7	The substance is not PBT / vPvB
Diocetyl tinbis(acetylacetonate) 54068-28-9	The substance is not PBT / vPvB

12.6. Other adverse effects

Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Uncured product should be disposed of as hazardous waste. Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

Contaminated packaging Handle contaminated packages in the same way as the product itself.

European Waste Catalogue 08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

Other information Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 UN number or ID number Not regulated

14.2 Proper Shipping Name Not regulated

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special Provisions None

IMDG

14.1 UN number or ID number Not regulated
14.2 Proper Shipping Name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Marine pollutant NP
14.6 Special Provisions None
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number Not regulated

14.2 Proper Shipping Name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special Provisions None

Section 15: REGULATORY INFORMATION

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Check whether measures in accordance with Directive 94/33/EC for the protection of young people at work must be taken.

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	CAS No	Restricted substance per REACH Annex XVII
Diisononyl phthalate	28553-12-0	52[a].

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

52

Not to be used in toys or childcare articles above 0.1% which can be placed in the mouth by children

Substance subject to authorisation per REACH Annex XIV

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Persistent Organic Pollutants

Not applicable

National regulations

France

Germany

Ordinance on Industrial Safety and Health - Germany - BetrSichV

No flammable liquids in accordance with BetrSichV

Water hazard class (WGK) slightly hazardous to water (WGK 1)

Netherlands

List of Carcinogenic, mutagenic and reproductive toxin substances in accordance with Inspectorate SZW (Netherlands) Not Listed

Denmark

Norway

15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H226 - Flammable liquid and vapour

H317 - May cause an allergic skin reaction

H332 - Harmful if inhaled

H371 - May cause damage to organs

Legend

TWA

TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling

Ceiling Limit Value

*

Skin designation

SVHC

Substance(s) of Very High Concern

PBT

Persistent, Bioaccumulative, and Toxic (PBT) Chemicals

vPvB

Very Persistent and very Bioaccumulative (vPvB) Chemicals

SAFETY DATA SHEET

PANDSER® EPDM ADHESIVE & SEALANT

Supersedes Date: 24-Nov-2020

Revision date 23-Nov-2020

Revision Number 1

STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
EWC	European Waste Catalogue

Key literature references and sources for data

No information available

Prepared By Product Safety & Regulatory Affairs

Revision date 23-Nov-2020

Indication of changes

Revision note Not applicable.

Training Advice When working with hazardous materials, regular training of operators is required by law

Further information No information available

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet