

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

Article No.: 281
Print date: 19.12.2019
Version: 2.8

BLENDA-PUR PU-Streichlack
Revision date: 14.12.2019
Issue date: 14.12.2019

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

1.1. Product identifier

Article No. (manufacturer/supplier) 281
Trade name/designation BLENDA-PUR PU-Streichlack
WV-281 seidenglanz

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

supplier (manufacturer/importer/downstream user/distributor)

Knuchel Farben AG
Farben + Lacke Telephone: +41 (0) 32 636 50 40
Steinackerweg 11 Telefax: +41 (0) 32 636 50 45
CH-4537 Wiedlisbach

Dept. responsible for information:

laboratory Manager
E-mail (competent person) info@knuchel.ch

1.4. Emergency telephone number

Emergency telephone number 145 (+41 (0)44 251 51 51)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

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

Hazard pictograms

Hazard statements

not applicable

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

Hazard components for labelling

not applicable

Supplemental Hazard information (EU)

EUH208 Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.
EUH210 Safety data sheet available on request.

2.3. Other hazards

No information available.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description waterborne acryl/PUR resin, containing the following hazardous substances:

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

EC No.	REACH No.	Wt %
CAS No.	Designation	
INDEX No.	classification: // Remark	
203-961-6	01-2119475104-44	
112-34-5	2-(2-butoxyethoxy)ethanol	1 - 2.5
603-096-00-8	Eye Irrit. 2 H319	

Additional information

Full text of H-phrases: see section 16.

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SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Unsuitable extinguishing media

strong water jet

5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ventilate affected area. Do not breathe vapours.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid contact with skin, eyes and clothes. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

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7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions

Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Keep container tightly closed. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values:

2-(2-butoxyethoxy)ethanol

INDEX No. 603-096-00-8 / EC No. 203-961-6 / CAS No. 112-34-5

WEL, TWA: 67.5 mg/m³; 10 ppm

WEL, STEL: 101.2 mg/m³; 15 ppm

Additional information

TWA : long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

DNEL:

2-(2-butoxyethoxy)ethanol

INDEX No. 603-096-00-8 / EC No. 203-961-6 / CAS No. 112-34-5

DNEL long-term oral (repeated), Workers: 1,25 mg/kg

DNEL long-term dermal (systemic), Workers: 20 mg/kg bw/day

DNEL acute inhalative (local), Workers: 101,2 mg/m³

DNEL long-term inhalative (local), Workers: 67,5 mg/m³

DNEL long-term inhalative (systemic), Workers: 67,5 mg/m³

DNEL long-term dermal (systemic), Consumer: 10 mg/kg bw/day

DNEL acute inhalative (local), Consumer: 7,5 mg/m³

DNEL long-term inhalative (local), Consumer: 34 mg/m³

DNEL long-term inhalative (systemic), Consumer: 34 mg/m³

PNEC:

2-(2-butoxyethoxy)ethanol

INDEX No. 603-096-00-8 / EC No. 203-961-6 / CAS No. 112-34-5

PNEC aquatic, freshwater: 1 mg/l

PNEC aquatic, marine water: 0,1 mg/l

PNEC aquatic, intermittent release: 3,9 mg/l

PNEC sediment, freshwater: 4,4 mg/kg

PNEC sediment, marine water: 0,44 mg/kg

PNEC, soil: 0,32 mg/kg dw

PNEC sewage treatment plant (STP): 200 mg/l

8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction.

Personal protection equipment

Respiratory protection

Not applicable.

Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)

Thickness of the glove material 0,4 mm Breakthrough time (maximum wearing time) 30 min

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin: Recommended

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glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Wear closely fitting protective glasses in case of splashes.

Body protection

Wear suitable protective clothing and gloves.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical state:	Liquid
Colour:	refer to label
Odour:	characteristic
Odour threshold:	not applicable
pH at 20 °C:	not applicable
Melting point/freezing point:	not applicable
Initial boiling point and boiling range:	100 °C Source: Wasser
Flash point:	not applicable Method: DIN 53213
Evaporation rate:	not applicable
flammability	
Burning time (s):	not applicable
Upper/lower flammability or explosive limits:	
Lower explosion limit:	0.8 Vol-%
Upper explosion limit:	not applicable
Vapour pressure at 20 °C:	23 mbar Source: Wasser
Vapour density:	not applicable
Relative density:	
Density at 20 °C:	1.20 g/cm ³
Solubility(ies):	
Water solubility (g/L) at 20 °C:	partially soluble
Partition coefficient: n-octanol/water:	see section 12
Auto-ignition temperature:	225 °C Source: 2-(2-butoxyethoxy)ethanol
Decomposition temperature:	not applicable
Viscosity at °C:	1750 - 2050 mPas
Explosive properties:	not applicable
Oxidising properties:	not applicable

9.2. Other information

Solid content (%):	50 Wt %
solvent content:	
Organic solvents:	3 Wt %
Water:	47 Wt %

SECTION 10: Stability and reactivity

10.1. Reactivity

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No information available.

10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. Incompatible materials

not applicable

10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

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

11.1. Information on toxicological effects

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Acute toxicity

2-(2-butoxyethoxy)ethanol

oral, LD50, Rat: > 200 mg/kg

dermal, LD50, Rabbit: 2764 mg/kg

Method: OECD 402

oral, Mouse: 2410 mg/kg

Method: OECD 401

inhalative (dust and mist), LC50, Rat: 29 ppm (2 h)

Method: OECD 403

No mortality within the stated exposure time in animal studies.

Skin corrosion/irritation; Serious eye damage/eye irritation

2-(2-butoxyethoxy)ethanol

Skin (4 h)

Method: OECD 404

No skin irritation

eyes

Method: OECD 405

Irritating to eyes.

Respiratory or skin sensitisation

2-(2-butoxyethoxy)ethanol

Skin, Guinea pig: ; evaluation not sensitising.

Method: OECD 406

Maximization test; dermal

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

2-(2-butoxyethoxy)ethanol

Germ cell mutagenicity; evaluation Did not show any mutagenic effects in animal experiments.

Tests with bacterial or mammalian cell cultures showed no evidence of mutagenic activity.

Carcinogenicity; evaluation The chemical structure does not give rise to any particular suspicion of a carcinogenic effect.

Reproductive toxicity; evaluation No effect on fertility in animal studies.

analogy

teratogenicity; evaluation Did not show any fruit-damaging effect in animal experiments.

STOT-single exposure; STOT-repeated exposure

2-(2-butoxyethoxy)ethanol

Specific target organ toxicity (single exposure)

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

Specific target organ toxicity (repeated exposure) evaluation Based on available data, the classification criteria are not met.

Continued skin contact may cause skin degreasing and dermatitis.

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Aspiration hazard

2-(2-butoxyethoxy)ethanol

Aspiration hazard

not applicable

Experiences with human exposure.

Chronic exposure damages the brain and the central nervous system.

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

SECTION 12: Ecological information

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

Do not allow to enter into surface water or drains.

12.1. Toxicity

2-(2-butoxyethoxy)ethanol

Fish toxicity, LC50, *Leuciscus idus* (golden orfe): > 100 mg/l (96 h)

Static test

Daphnia toxicity, EC50, *Daphnia magna*: > 100 mg/l (48 h)

Static test; Directive 67/548/EEC, Annex V, C.2 ; The statement about the toxic effects refers to the nominal concentration level.

Fish toxicity, LC50, *Lepomis macrochirus* (Bluegill): 1300 mg/l (96 h)

Method: OECD 203

Static test; The statement about the toxic effects refers to the nominal concentration level.

Algae toxicity, EC50, *Scenedesmus subspicatus*: > 100 mg/l (96 h)

Method: OECD 201

Static test; The statement about the toxic effects refers to the nominal concentration level.

Bacterial toxicity, EC10, Activated sludge: > 1995 mg/l (30 min)

Method: OECD 209

The statement about the toxic effects refers to the nominal concentration level.

Long-term Ecotoxicity

Toxicological data are not available.

12.2. Persistence and degradability

2-(2-butoxyethoxy)ethanol

Persistence and degradability:

No data available

Biodegradation: > 70 % (28 d); evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 301E

aerobic; activated sludge; 10 mg/l

Biodegradation: > 100 % (28 d); evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 302B

aerobic; activated sludge; 500 mg/l

Biodegradation: 80 - 90 %; evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 301C

aerobic; mixed inoculum; based on: Theoretical oxygen demand

Biodegradation: 76 % (28 d); evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 301D

Biodegradation: 90 - 100 % (8 d); evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 302B

Biodegradation: 90 - 100 % (14 d); evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 301E

12.3. Bioaccumulative potential

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2-(2-butoxyethoxy)ethanol
Distribution coefficient n-octanol/water (log KOW): 1
Method: OECD 117
The product has a low bioaccumulation potential

Bioconcentration factor (BCF)

Toxicological data are not available.

12.4. Mobility in soil

2-(2-butoxyethoxy)ethanol
Water: evaluation The product is water soluble.
Air: evaluation The substance does not evaporate from the water surface into the atmosphere.
soil: evaluation A binding to the solid ground phase is not to be expected.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

List of proposed waste codes/waste designations in accordance with EWC

080112 waste paint and varnish other than those mentioned in 08 01 11

Appropriate disposal / Package Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

This mixture is not classified as dangerous according to international transport regulations (ADR/RID, IMDG, ICAO/IATA).

No dangerous good in sense of this transport regulation.

14.1. UN number

not applicable

14.2. UN proper shipping name

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

Land transport (ADR/RID) not applicable

Marine pollutant not applicable

14.6. Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

tunnel restriction code -

Sea transport (IMDG)

EmS-No. not applicable

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14.7. **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
not applicable

SECTION 15: Regulatory information

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

EU legislation

Directive 2010/75/EU on industrial emissions

VOC-value (in g/L): 34

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations, restrictions and prohibition regulations

15.2. **Chemical Safety Assessment**

For the following substances of this mixture a chemical safety assessment has been carried out:

EC No.	Designation	REACH No.
CAS No.		
203-961-6	2-(2-butoxyethoxy)ethanol	01-2119475104-44
112-34-5		

SECTION 16: Other information

Full text of classification in section 3

Eye Irrit. 2 / H319 Serious eye damage/eye irritation Causes serious eye irritation.

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

Further information

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

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in

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chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

* Data changed compared with the previous version