

1. Identification of the substance/ preparation and of the company/ undertaking

Identification of the substance or preparation

Trade name germanBond® 2kR

Use of the substance/ preparation

Identified uses

Product categories [PC]:

Adhesives, sealants

Uses advised against

Do not use for private purposes (household).

Company/ undertaking identification

Manufacturer

germanBelt GmbH

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2. Hazards identification

Classification according to directive 67/548/EEC or 1999/45/EC

Danger characteristic(s)

Carcinogenic Cat. 2 (Carc. Cat. 2)

Mutagenic Cat. 3 (Mut. Cat. 3)

Xi; R36/38

Carc. Cat. 2; R45

R67

Muta. Cat. 3; R68

R52

R53

Labelling (67/548/EEC or 1999/45/EC)

Hazardous component(s) for labelling

containing trichlorethylene

Danger symbol(s) and danger term(s) for dangerous materials and preparations

T Toxic.

R phrases

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67 Vapours may cause drowsiness and dizziness.

R45 May cause cancer.

R36/38 Irritating to eyes and skin.

Special labelling of particular preparations

Reserved for industrial and professional use.

Contains: Trichlorethylen

S phrases

S45 In case of accident or if you feel unwell, seek medical advice immediately (show this label if possible).

S53 Avoid exposure - obtain special instructions before use.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Classification according EC regulation 1272/2008 (CLP)

Environmental hazards

Hazard classes and hazard categories:

Aquatic Chronic 3

Hazard Statements:

H412 Harmful to aquatic life with long lasting effects.

Health hazards

Hazard classes and hazard categories:

Skin Irrit. 2

Hazard Statements:

H315 Causes skin irritation.

Hazard classes and hazard categories:

Carc. 1

Hazard Statements:

H350 May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

Hazard classes and hazard categories:

Eye Irrit. 2

Hazard Statements:

H319 Causes serious eye irritation.

Hazard classes and hazard categories:

STOT SE 3

Hazard Statements:

H336 May cause drowsiness or dizziness.

Hazard classes and hazard categories:

Muta. 2

Hazard Statements:

H341 Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

Labelling (EU-GHS)

Hazard pictograms



GHS07

GHS08

Hazard Statements

Hazard statements for health hazards:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H341 Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H350 May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

hazard statements for environmental hazards

H412 Harmful to aquatic life with long lasting effects.

Remark

For professional users.

Precautionary Statements

Prevention:

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.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/attention.

Storage:

P405 Store locked up.

Signal word

Danger

3. Composition/ Information on ingredients

Additional information

CAS: 79-01-6 Trichloroethylene SVHC

Preparation related information

Description

Mixture with trichlorethylene

Dangerous ingredients

trichloroethylene	ca.85 %
CAS 79-01-6	
EC 201-167-4	
INDEX 602-027-00-9	
Carc.Cat.2 R45; Muta.Cat.3 R68; R67; Xi R36/38; R52-53	
Skin Irrit. 2, H315 / Eye Irrit. 2, H319 / Muta. 2, H341 / Carc. 1B, H350 /	
STOT SE 3, H336 / Aquatic Chronic 3, H412	
colophony	0,1 - 1 %
CAS 8050-09-7	
EC 232-475-7	
INDEX 650-015-00-7	
R43	
Skin Sens. 1, H317	

Zinkoxid	<5 %
CAS 1314-13-2	
EC 215-222-5	
INDEX 030-013-00-7	
REACHNo 01-2119463881-32-0000	
N; R50/53	
Aquatic Acute 1, H400 / Aquatic Chronic 1, H410	

4. First-aid measures

General information

If victim is at risk of losing consciousness, position and transport on their side. Move victim out of danger zone and lay down. Maintain victim in horizontal position during transport. Put victim at rest, cover with a blanket and keep warm. Take off immediately all contaminated clothing. Immediately get medical attention.

Following inhalation

In case of irritation of the respiratory tract seek medical advice. Provide fresh air. In case of inhaling spray mists, consult a doctor immediately and show him box or label.

After skin contact

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.

Following eye contact

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

after ingestion

Do not induce vomiting.

Self-protection of the first aider.

First aid assistant: Pay attention to self-protection!

Information to physician

Symptoms:

shortage of breath. difficulties of breathing. drowsiness. unconsciousness. excitation.

Nature of Hazard:

Allergic reactions. Asthmatic complaints. shortage of breath. difficulties of breathing. drowsiness. unconsciousness. Impaired consciousness.

Treatment:

Where appropriate artificial ventilation. To supervise the blood circulation.

5. Fire-fightingmeasures

Suitable extinguishing media

Carbon dioxide (CO₂). Sand. Atomized water. Water spray. Foam.

Extinguishing media which must not be used for safety reasons

High power water jet.

Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases

Hydrogen chloride (HCl). Chlorine (Cl₂). phosgene.

Special protective equipment for fire-fighters

In case of fire: Wear self-contained breathing apparatus. Wear a self-contained breathing apparatus and chemical resistant suit.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Remove product from area of fire.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

Personal precautions

Vapours are heavier than air and will spread at floor level. See protective measures under point 7 and 8. Wear personal protection equipment. Remove all sources of ignition. Provide adequate ventilation.

Environmental precautions

Cover drains. Do not empty into drains or the aquatic environment. Do not allow to enter into soil/subsoil.

Methods for cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Ventilate affected area.

Additional information

Eliminate leaks immediately.

7. Handling and storage

Handling

Precautions against fire and explosion

Do not eat, drink, smoke or snort at the workplace.

Specific requirements or handling regulations

Product must only be transfilled and handled in a closed system. Process within closed systems. Carry out bottling at stations preventing a suction sections only.

Information for safe handling

Preventive measures

If suction of the immediate vicinity is impossible or insufficient, the entire working place must be sufficiently ventilated using appropriate machines. Provide a suction section for room air on ground-level. Always close containers tightly after the removal of product.

Technical measures

Measures required to protect the environment

Refer to chapter 8.

Measures to prevent aerosol and dust accumulation

Equipment with built-in suction provisions.

Use for bottling, transfer, proportioning and sampling if possible:

closed devices with gas hunting.. Equipment with built-in suction provisions.

Storage

Requirements for storerooms and containers

Keep container tightly closed. Material, solvent-proof. Provide for retaining containers, eg. floor pan without outflow. Only use containers approved for especially this product. Keep/Store only in original container. Restrict access to stockrooms.

Information about storage in one common storage facility

Do not store together with:

Oxidizing agents.

Food and animal feedingstuff

Further information concerning storage conditions

Do not store at temperatures over: + 30°C

Storage class

6.1 B

Non-combustible toxic substances (liquid)

Specific use(s)

Recommendation

Observe technical data sheet. Observe instructions for use.

8. Exposure controls/ Personal protection

Exposure limit values

Components with workplace or biological limit values to be monitored

Additional critical values of explosion under processing conditions

Biological limit values

Limit value type (country of origin):

BGW (DE).

Identification of the hazard: Trichlorethylen

CAS-No. 79-01-6

Parameter:

Tetrachlorethanol

Value: 5 mg/l

Examination material:

Whole blood (B).

Test date:

b, c

Source:

TRGS 903.

Limit value type (country of origin):

BGW (DE).

Identification of the hazard: Trichlorethylen

CAS-No. 79-01-6

Parameter:

Trichloressigsäure

Value: 100 mg/l

Examination material:

Urine (U).

Test date:

b, c

Source:

TRGS 903.

Exposure controls

Occupational exposure controls

Personal protection equipment

Suitable eye protection

Tightly sealed safety glasses. Eye wash bottle with pure water.

Hand protection

In case of prolonged or frequently repeated skin contact:

Suitable material

FKM (fluororubber).

Unsuitable materials

Thick material. PVC (Polyvinyl chloride). NR (Natural rubber (caoutchouc), Natural latex). CR (polychloroprenes, Chloroprene rubber). Butyl rubber.

penetration time (maximum wearing period): ca.480 min

Thickness of glove material: >0,7 mm

Remarks

Type of chemical protective gloves to choose depends on the concentration and quantity of dangerous substances as well as on work place specifications. In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Skin protection

Work clothing with long sleeves.

Respiratory protection

Respiratory protection required in case of:

exceeding critical value

Handling larger quantities. high concentration. bottling and transfer.

When limits are exceeded: type A for organic gases and vapors

Environmental exposure controls

Product related measures to prevent exposure

The regulations for exhaust must be observed. An entry into the environment should be avoided.

Consumer exposure controls

Measures related to consumer uses of the substance (as such or in preparations)

See Chapter 7.

9. Physical and chemical properties

General information

Appearance

Colour

black

colourless

off-white

State of matter

liquid

Odour

characteristic

Important health, safety and environmental information

Safety relevant basis data

boiling temperature / boiling range: 87 °C

density: 1,45 g/cm³

at °C: 20 °C

Flash point

Evaluation:

No flash point according to standard method.

melting point / melting range: -87 °C

Vapour pressure: 77 hPa

at °C: 20 °C

Solubility

Solubility in water (g/l): ca.1 g/l
at °C: 20 °C

Remark:

slightly soluble

Viscosity

Viscosity, dynamic: ca.2500 mPa*s
at °C: 20 °C

Substance group relevant properties

lower explosion limit: 7,9 Vol-%

Upper explosion level: 90 Vol-%

Ignition temperature (AIT) 410 °C

Other information

Other information

Decomposition Temperature:> 110 ° C

Solid content (%) ca.12 %

10. Stability and reactivity

Conditions to avoid

When heated> 110 ° C

Hazardous decomposition products

chlorine. phosgene. hydrochloric gas.

Materials to avoid

Alkalis (alkalis). Oxidizing agents, strong.

11. Toxicological information

Toxicological Tests

Acute effects

Acute toxicity, dermal >29000 mg/kg

Effective dose:

LD50:

species:

Rabbit.

Acute toxicity, inhalant 43,7 - 68,28 mg/l

Effective dose:

LC50:

Exposure time: 4 h

species:

Rat.

Acute toxicity, oral 4290 - 7200 mg/kg

Effective dose:

LD50:

species:

Rat.

Irritation and etching

Irritant effect on the eye

Evaluation:

irritant.

Irritant effect on the respiratory tract

Evaluation:

May cause respiratory irritation.

Irritant effect on the skin

Evaluation:

Causes skin irritation.

Sensitization

Additional information

No sensitizing effects known.

Repeated dose toxicity

Evaluation/Classification

Danger of serious damage to health by prolonged exposure if swallowed. May cause damage to organs through prolonged or repeated exposure.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Summarized evaluation of the CMR properties

Trichloroethylene is classified as GHS: Mutag. 2 and Carc. 1B

Practical experience

Observations relevant to classification

May be absorbed through the skin. Frequently or prolonged contact with skin may cause dermal irritation.

12. Ecological information

Ecotoxicity

Aquatoxicity

Acute fish toxicity 41 mg/l

Effective dose:

LC50:

Exposure time: 96 h

Acute Daphnia toxicity 18 mg/l

Effective dose:

EC50:

Exposure time: 48 h

Algae toxicity 175 mg/l

Effective dose:

IC50:

Exposure time: 96 h

Bacterial toxicity: 975 mg/l

Effective dose:

EC50:

Exposure time: 5 min

Persistence and degradability

Biological degradation

Evaluation:

Not easily bio-degradable (according to OECD-criteria).

Bioaccumulative potential

accumulation/remark

is low (BCF < 100 oder log pOW < 3)

Distribution coefficient (n-octanol / water) (log P O/W): 2,42

Results of PBT assessment

Results of PBT assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

13. Disposal considerations

Appropriate disposal/Product

Waste disposal according to official state regulations.

Contaminated packaging

Contaminated packing must be completely emptied and can be re-used following appropriate cleaning. Packing which cannot be properly cleaned must be thrown away. Handle contaminated packaging in the same way as the substance itself.

Waste key product: 080409

Waste designation:

waste adhesives and sealants containing organic solvents or other dangerous substances

14. Transport information

Overland transport (ADR/RID)

UN No.	1710
Official directive for the transport	TRICHLOROETHYLENE
Class	6.1
Classification code	T1
Packing Group	III
Label	6.1
Limited quantity (LQ)	5 L
Hazard identification number (Kemler No.)	60
Tunnel restriction code	E
Transport category	2

Transport by sea (IMDG)

UN-No.	1710
Proper Shipping Name	TRICHLOROETHYLENE
IMDG-CODE-Class	6.1
Packing Group	III
Remark	Marine Pollutant: no; EMS-Nr. F-A; S-A

Air transport (ICAO-TI / IATA-DGR)

UN/ID number	1710
Proper Shipping Name	Trichloroethylene
Class or Division	6.1
Packing Group	III
Limited quantity (LQ)	2
Remark	toxic substances

15. Regulatory information

EU-Regulations

Chemical Safety Assessment

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

Other regulations (EU)

Informations on working limitations

CAS: 79-01-6 Trichlorethylen

Very high concern (SVHC) under REACH, Article 57

Data concerning the Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOC-RL)

Volatile organic compounds (VOC) in percentage by weight: <90 % by weight

National regulations

Hazardous incident (reporting) ordinance

Remark:

in Annex I, No: 9 (12 BImSchV)

Technical instructions on air (TA-AIR)

Class:

III

Remark:

No. 5.2.7.1.1, ie that contained in the exhaust emission can the mass flow of 2.5 g / h or the mass concentration of 1 mg / m³ not exceed a total.

Further regulations, limitations and legal requirements

§ 3 ChemVerbotsV (Informations- und Aufzeichnungspflichten bei der Abgabe an Dritte).

§ 4 ChemVerbotsV (Selbstbedienungsverbot, Versandhandel)

Anhang Chemikalien-Verbotsverordnung (ChemVerbotsV). § 2 ChemVerbotsV (Erlaubnis- und Anzeigepflicht).

Informations on working limitations

Do not sell or give to persons under the age of 18 years.

§ 5 MuSchRiV

§ 22 JArbSchG

§ 4 MuSchRiV

Workers shall not be exposed to this hazardous substance. In each case, the authority may allow exceptions.

Water hazard class

stark wassergefährdend (WGK 3) (very hazardous)

Source:

Rating acc. to VwVwS, Attachment 2

Remark:

Kenn-Nummer: 199

16. Other information

Recommended restrictions of use

Remark:

For industrial purposes only.

Documentation of changes

Chapter 1-16

Further remarks

Notice the directions for use on the label.

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

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67 Vapours may cause drowsiness and dizziness.

R68 Possible risks of irreversible effects.

R45 May cause cancer.

R36/38 Irritating to eyes and skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H341 Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H350 May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

R52 Harmful to aquatic organisms.

R53 May cause long-term adverse effects in the aquatic environment.

Data sources

Data arise from reference works and literature.

Training instructions

The product should be restricted to persons who were sufficiently informed about the work, the hazardous properties and necessary safety measures.