

TROVEX DIAMOND BOND PART B

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. PRODUCT IDENTIFIER

Product name: Trovex Bond Two Part Adhesive Part B

Product number: TB300 PART B

Synonyms; trade names: P-MDI, MDI

CAS number: 101-68-8

EU index number: 615-005-00-9

EC number: 202-966-0

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Identified uses: Adhesive.

Uses advised against: No specific uses advised against are identified.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Supplier: Trovex

Innova House

Rashes Green

Dereham

Norfolk

NR19 1JG

T: +44 (0) 1707 254170

F: +44 (0) 1707 254171

E: info@trovex.com

1.4. EMERGENCY TELEPHONE NUMBER

Emergency telephone: NHS:111 +44 01707 254170 (Monday - Friday: 7:30am - 4:30pm)

SECTION 2: HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE CLASSIFICATION: (EC 1272/2008)

Physical hazards: Not Classified

Health hazards: Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373

Environmental hazards: Not Classified

Human health: May cause sensitisation by inhalation. The liquid may be irritating to skin. Contains nonvolatile isocyanate. Heating may generate vapours which irritate the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. LABEL ELEMENTS

EC number: 202-966-0

Pictogram:



Signal word: Danger

Hazard statements:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

EUH204 Contains isocyanates. May produce an allergic reaction.

P260 Do not breathe vapour/ spray.

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

P281 Use personal protective equipment as required.

P284 [In case of inadequate ventilation] wear respiratory protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

P501 Dispose of contents/ container in accordance with national regulations.

RCH004a Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

RCH004b Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

RCH004c This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

Contains: DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

2.3. OTHER HAZARDS

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. MIXTURES

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE 60-100%

CAS number: 101-68-8 EC number: 202-966-0 REACH registration number: 01-2119457014-47-0000

Classification:

Acute Tox. 4 - H332

Skin Irrit. 2 - H315

Eye Irrit. 2 - H319

Resp. Sens. 1 - H334

Skin Sens. 1 - H317

Carc. 2 - H351

STOT SE 3 - H335

STOT RE 2 - H373

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. DESCRIPTION OF FIRST AID MEASURES

General information: Remove affected person from source of contamination.

Inhalation: Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion: DO NOT induce vomiting. Get medical attention immediately.

Skin contact: Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

Eye contact: Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this

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Safety Data Sheet to the medical personnel.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

General information: The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation: Irritation of nose, throat and airway. Coughing, chest tightness, feeling of chest pressure.

Ingestion: May cause discomfort if swallowed.

Skin contact: Prolonged skin contact may cause redness and irritation.

Eye contact: Severe irritation, burning and tearing.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Notes for the doctor: No specific recommendations. If in doubt, get medical attention promptly.

SECTION 5: FIREFIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

Suitable extinguishing media: Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Specific hazards: The product is non-combustible. Irritating gases or vapours. Not known.

Hazardous combustion products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

5.3. ADVICE FOR FIREFIGHTERS

Protective actions during firefighting: Containers close to fire should be removed or cooled with water. Do not allow water to contact any leaked material.

Special protective equipment for firefighters: Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal precautions: Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions: Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Methods for cleaning up: Absorb spillage with non-combustible, absorbent material. Absorb spillage with noncombustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Provide adequate ventilation. Contain spillage with sand, earth or other suitable non-combustible material. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. REFERENCE TO OTHER SECTIONS

Reference to other sections: Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Usage precautions: Avoid inhalation of vapours and spray/mists. Avoid contact with skin and eyes. Do not use in confined spaces without adequate ventilation and/or respirator. Spraying is permitted only in closed systems, spray cabinets or spray boxes with adequate ventilation.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage precautions: Store in closed original container at temperatures between 5°C and 25°C.

Storage class: Chemical storage.

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7.3. SPECIFIC END USE(S)

Specific end use(s): The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

Occupational exposure limits:

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³(Sen)

Short-term exposure limit (15-minute): WEL 0.07 mg/m³(Sen)

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³(Sen)

Short-term exposure limit (15-minute): WEL 0.07 mg/m³(Sen)

WEL = Workplace Exposure Limit

Ingredient comments: WEL = Workplace Exposure Limits

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE (CAS: 101-68-8)

DNEL:

Workers - Inhalation; Short term systemic effects: 0.1 mg/m³

Workers - Dermal; Short term local effects: 28.7 mg/cm²

Workers - Inhalation; Short term local effects: 0.1 mg/m³

Workers - Inhalation; Long term systemic effects: 0.05 mg/m³

Workers - Inhalation; Long term local effects: 0.05 mg/m³

Consumer - Dermal; Short term systemic effects: 25 mg/kg bw/day

Workers - Dermal; Short term systemic effects: 50 mg/kg bw/day

Consumer - Oral; Short term systemic effects: 20 mg/kg bw/day

Consumer - Dermal; Short term local effects: 17.2 mg/cm²

Consumer - Inhalation; Short term local effects: 0.05 mg/m³

Consumer - Inhalation; Long term systemic effects: 0.025 mg/m³

Consumer - Inhalation; Long term local effects: 0.025 mg/m³

Consumer - Inhalation; Short term systemic effects: 0.05 mg/m³

PNEC:

- Marine water; 0.1 mg/l

- STP; 1 mg/l

- Fresh water; 1 mg/l

- Soil; 1 mg/kg

8.2. EXPOSURE CONTROLS

Protective equipment:



Appropriate engineering controls: Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection: Wear chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection: It is recommended that gloves are made of the following material: Nitrile rubber. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. For exposure up to 8 hours, wear gloves made of the following material: Nitrile rubber. To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection: Wear suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.

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Hygiene measures: Use engineering controls to reduce air contamination to permissible exposure level. Wash hands after handling. When using do not eat, drink or smoke.

Respiratory protection: If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type AX. Gas and combination filter cartridges should comply with European Standard EN14387.

Environmental exposure controls: Keep container tightly sealed when not in use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Coloured liquid.

Colour: Brown.

Odour: Musty (mouldy).

Odour threshold: Not available.

pH: Not available.

Melting point: <10°C

Initial boiling point and range: 330°C @ mbar

Flash point: >200°C CC (Closed cup).

Evaporation rate: Slow

Evaporation factor: Not available.

Flammability (solid, gas): Not available.

Upper/lower flammability or explosive limits: Not available.

Other flammability: Not available.

Vapour pressure: 0.01 Pa @ °C

Vapour density: 8.5

Relative density: 1.24 @ 20°C

Bulk density: Not available.

Solubility(ies): Insoluble in water. Hardens in contact with water.

Partition coefficient: Not available.

Auto-ignition temperature: >600°C

Decomposition Temperature: Not available.

Viscosity: 90-130 mPa s @ 25°C

Explosive properties: Not available.

Explosive under the influence of a flame: Not considered to be explosive.

Oxidising properties: Not available.

Comments: Information given is applicable to the product as supplied.

9.2. OTHER INFORMATION

Other information: No information required.

Refractive index: Not available.

Particle size: Not available.

Molecular weight: Not available.

Volatility: Not available.

Saturation concentration: Not available.

Critical temperature: Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

Reactivity: The product will harden into a solid mass in contact with water and moisture.

10.2. CHEMICAL STABILITY

Stability: Stable at normal ambient temperatures and when used as recommended.

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10.3. POSSIBILITY OF HAZARDOUS REACTIONS:

Possibility of hazardous reactions: Not applicable. May polymerise.

10.4. CONDITIONS TO AVOID:

Conditions to avoid: Avoid contact with water.

10.5. INCOMPATIBLE MATERIALS

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous decomposition products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY - ORAL

Acute toxicity oral (LD₅₀mg/kg): 10,000.0

Species: Rat

ACUTE TOXICITY - DERMAL

Acute toxicity dermal (LD₅₀mg/kg): 10,000.0

Species: Rabbit

ACUTE TOXICITY - INHALATION

Species: Rat

ATE inhalation (vapours mg/l): 11.0

SKIN CORROSION/IRRITATION

Animal data: Irritating.

SERIOUS EYE DAMAGE/IRRITATION

Serious eye damage/irritation: Moderately irritating.

RESPIRATORY SENSITISATION

Respiratory sensitisation: Sensitising.

CARCINOGENICITY

Carcinogenicity: Suspected carcinogen based on limited evidence.

Target organ for carcinogenicity: No specific target organs known.

REPRODUCTIVE TOXICITY

Reproductive toxicity - development: This substance has no evidence of toxicity to reproduction.

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE

STOT - repeated exposure: Morphological changes that are potentially reversible but provide clear evidence of marked organ dysfunction.

ASPIRATION HAZARD

Aspiration hazard: Not anticipated to present an aspiration hazard, based on chemical structure.

Inhalation: Irritating to respiratory system. May cause sensitisation by inhalation.

Ingestion: May cause stomach pain or vomiting.

Skin contact: Irritating to skin. May cause sensitisation by skin contact.

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Eye contact: Irritation of eyes and mucous membranes.

Acute and chronic health hazards: May cause sensitisation by skin contact. The product contains small quantities of isocyanate. May cause respiratory allergy. May cause respiratory system irritation. May cause respiratory system irritation. Frequent inhalation of vapours may cause respiratory allergy.

Route of entry: Inhalation Skin and/or eye contact

Medical symptoms: Irritation of eyes and mucous membranes. Coughing, chest tightness, feeling of chest pressure.

Medical considerations: Chronic respiratory and obstructive airway diseases.

TOXICOLOGICAL INFORMATION ON INGREDIENTS

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

ACUTE TOXICITY - ORAL

Acute toxicity oral (LD₅₀mg/kg): 10,000.0

Species: Rat

ATE oral (mg/kg): 10,000.0

ACUTE TOXICITY - DERMAL

Acute toxicity dermal (LD₅₀mg/kg): 9,400.0

Species: Rabbit

ATE dermal (mg/kg): 9,400.0

ACUTE TOXICITY - INHALATION

Acute toxicity inhalation (LC₅₀ vapours mg/l): 0.31

Species: Rat

ATE inhalation (vapours mg/l): 11.0

CARCINOGENICITY

IARC carcinogenicity: IARC Group 3 Not classifiable as to its carcinogenicity to humans.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: The product is not expected to be hazardous to the environment.

12.1. TOXICITY

Acute toxicity - fish: LC₅₀, 96 hours: > 1000 mg/l, Freshwater fish

Acute toxicity - aquatic invertebrates: EC₅₀, 48 hours: >500 mg/l, Daphnia magna

Acute toxicity - aquatic plants: EC₅₀, 72 hours: ~ 1640 mg/l, Scenedesmus subspicatus

ECOLOGICAL INFORMATION ON INGREDIENTS

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Acute toxicity - fish: LC₅₀, 96 hours: >1000 mg/l, Marinewater fish

Acute toxicity - aquatic invertebrates: EC₅₀, 24 hours: >1000 mg/l, Daphnia magna

Chronic toxicity - aquatic invertebrates: NOEC, 21 days: >10 mg/l, Daphnia magna

12.2. PERSISTENCE AND DEGRADABILITY

Persistence and degradability: The product is not readily biodegradable.

Stability (hydrolysis): Reacts with water.

Biological oxygen demand: < 10 g O₂/g substance

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12.3. BIOACCUMULATIVE POTENTIAL

Bioaccumulative potential: The product does not contain any substances expected to be bioaccumulating.

Partition coefficient: Not available.

ECOLOGICAL INFORMATION ON INGREDIENTS

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Partition coefficient: log Pow: 4.51

12.4. MOBILITY IN SOIL

Mobility: The product is non-volatile.

12.5. RESULTS OF PBT AND VPVB ASSESSMENT

Results of PBT and vPvB assessment: This product does not contain any substances classified as PBT or vPvB.

12.6. OTHER ADVERSE EFFECTS

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

General information: Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods: Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Waste class: 070208

SECTION 14: TRANSPORT INFORMATION

General: The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN NUMBER:

Not applicable.

14.2. UN PROPER SHIPPING NAME

Not applicable.

14.3. TRANSPORT HAZARD CLASS(ES)

Transport labels: No transport warning sign required.

14.4. PACKING GROUP

Not applicable.

14.5. ENVIRONMENTAL HAZARDS

Environmentally hazardous substance/marine pollutant: No.

14.6. SPECIAL PRECAUTIONS FOR USER

Not applicable.

14.7. TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL AND THE IBC CODE

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

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SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

National regulations: Health and Safety at Work etc. Act 1974 (as amended).

EU legislation: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Guidance: Isocyanates: Health hazards and precautionary measures EH16.

15.2. CHEMICAL SAFETY ASSESSMENT

No chemical safety assessment has been carried out.

INVENTORIES

US - TSCA: All the ingredients are listed or exempt.

SECTION 16: OTHER INFORMATION

Issued by: Compliance

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Supersedes date: 16/02/2016

HAZARD STATEMENTS IN FULL

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

Store Between: Store Between 5°C - 25°C

Contains SVHC: NO

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.
