

Bondtek Adhesive - Component A

Safety Data Sheet

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

Date of issue: 1/3/2018

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Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : Bondtek Adhesive - Component A
Product code : 60220/6050

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

1.2.1. Relevant identified uses

Main use category : Industrial use
Use of the substance/mixture : Prosthetic device manufacturing

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Fabtech Systems LLC
PO Box 2248
98213 Everett, WA - USA
T 1-800-322-8324
info@fabtechsystems.com

Distributor

Orthopartners B.V
Jan van derHeijdenstraat 18-20
2665 JA Bleiswijk, N.L
T +31(0) 36 521 28 00
info@orthopartners.eu

1.4. Emergency telephone number

Emergency number : INFOTRAC 24hr 800-535-5053
International 1-352-323-3500

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute Tox. 4 (Inhalation:dust,mist)	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

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

GHS08

Signal word (CLP) :

Danger

Hazardous ingredients :

4,4'-Methylenediphenyl diisocyanate; Benzene, 1,1'-methylenebis[isocyanato-

Hazard statements (CLP) :

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.

Precautionary statements (CLP) :

P201 - Obtain special instructions before use.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

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P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P284 - Wear respiratory protection..
 P304+P341+P342+P311 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
 P308+P313 - IF exposed or concerned: Get medical advice/attention.

Unknown acute toxicity (CLP) - SDS : 100% of the mixture consists of ingredient(s) of unknown acute dermal toxicity
 Unknown hazards to the aquatic environment (CLP) : Contains 100 % of components with unknown hazards to the aquatic environment

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4,4'-Methylenediphenyl diisocyanate (Note C)(Note 2)	(CAS-No.) 101-68-8 (EC-No.) 202-966-0 (EC Index-No.) 615-005-00-9	95 - < 100	Acute Tox. 4 (Inhalation), 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
Benzene, 1,1'-methylenebis[isocyanato- (Note C)(Note 2)	(CAS-No.) 26447-40-5 (EC-No.) 247-714-0 (EC Index-No.) 615-005-00-9	< 1	Acute Tox. 4 (Inhalation), 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

Specific concentration limits:

Name	Product identifier	Specific concentration limits
4,4'-Methylenediphenyl diisocyanate	(CAS-No.) 101-68-8 (EC-No.) 202-966-0 (EC Index-No.) 615-005-00-9	(C >= 0.1) Resp. Sens. 1, H334 (C >= 5) STOT SE 3, H335 (C >= 5) Skin Irrit. 2, H315 (C >= 5) Eye Irrit. 2, H319
Benzene, 1,1'-methylenebis[isocyanato-	(CAS-No.) 26447-40-5 (EC-No.) 247-714-0 (EC Index-No.) 615-005-00-9	(C >= 0.1) Resp. Sens. 1, H334 (C >= 5) STOT SE 3, H335 (C >= 5) Skin Irrit. 2, H315 (C >= 5) Eye Irrit. 2, H319

Note 2 : The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical advice/attention if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. Apply cortisone spray at early stage.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Symptoms/effects after inhalation : Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

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Symptoms/effects after skin contact	: Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Extinguishing powder. Carbon dioxide. In case of major fire and large quantities: Foam.
Unsuitable extinguishing media	: Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Products of combustion may include, and are not limited to: oxides of carbon, Nitrogen oxides, Hydrogen cyanide.
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5.3. Advice for firefighters

Protection during firefighting	: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Cool closed containers exposed to fire with water spray.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Avoid contact with skin and eyes. Do not breathe dust.
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6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
Methods for cleaning up	: Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Do not breathe dust, fume, gas, mist, spray, vapours. Avoid contact with skin and eyes. Do not swallow. Minimize generation of dust. Use only outdoors or in a well-ventilated area. Handle and open container with care. When using do not eat, drink or smoke.
Hygiene measures	: Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ensure adequate ventilation, especially in confined areas.
Storage conditions	: Keep out of the reach of children. Keep container tightly closed. Store locked up. Keep only in original container. Store in dry, cool, well-ventilated area. Keep away from heat and direct sunlight. Protect from moisture.
Information on mixed storage	: Do not store with: Explosives. Oxidizers. Radioactive materials. Infectious substances.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Wear suitable gloves resistant to chemical penetration. The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN 374.

Eye protection:

Safety eyewear complying with an approved standard such as the European Standard EN166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls:

Avoid release to the environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Colourless / Yellow
Odour	: Stinging
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 40 °C (104 °F)
Freezing point	: No data available
Boiling point	: > 300 °C (>572 °F)
Flash point	: > 200 °C (>392 °F)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: ≈ 1.3 g/cm ³
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: None.
Oxidising properties	: None.
Lower explosive limit (LEL)	: 0.4 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous polymerisation: Monomeric MDI can polymerise violently upon heating.

10.2. Chemical stability

Stable under normal conditions.

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10.3. Possibility of hazardous reactions

Reacts on contact with water releasing carbon dioxide (CO₂).

10.4. Conditions to avoid

Heat. Moisture. Direct sunlight. Incompatible materials. Avoid dust formation.

10.5. Incompatible materials

Water. Oxidizing agent. Reducing agents. Alkalis. Acids. alcohols. Amines. Metals.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Nitrogen oxides. Hydrogen cyanide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.
Acute toxicity (dermal) : Not classified.
Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

ATE CLP (dust,mist)	1.5 mg/l/4h
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4,4'-Methylenediphenyl diisocyanate (101-68-8)

LD50 oral rat	31600 mg/kg
LC50 inhalation rat	369 mg/m ³ (Exposure time: 4 h)

Benzene, 1,1'-methylenebis[isocyanato- (26447-40-5)

LD50 oral rat	> 10000 mg/kg
LD50 dermal rabbit	> 10000 mg/kg
LC50 inhalation rat	490 mg/m ³ (Exposure time: 4 h)

Unknown acute toxicity (CLP) - SDS : 100% of the mixture consists of ingredient(s) of unknown acute dermal toxicity
Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified.
Additional information : Based on available data, the classification criteria are not met.
Carcinogenicity : Suspected of causing cancer.
Reproductive toxicity : Not classified.
Additional information : Based on available data, the classification criteria are not met.
STOT-single exposure : May cause respiratory irritation.
STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard : Not classified.
Additional information : Based on available data, the classification criteria are not met.
Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.
Unknown hazards to the aquatic environment (CLP) : Contains 100 % of components with unknown hazards to the aquatic environment
Acute aquatic toxicity : Not classified.
Chronic aquatic toxicity : Not classified.

Benzene, 1,1'-methylenebis[isocyanato- (26447-40-5)

NOEC (acute)	>= 1000 mg/kg (Exposure time: 14 Days - Species: Eisenia foetida [soil dry weight])
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12.2. Persistence and degradability

BondtekAdhesive - Component A

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	Bioaccumulation unlikely.
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Benzene, 1,1'-methylenebis[isocyanato- (26447-40-5)

BCF fish 1	3 - 14
Partition coefficient n-octanol/water	4.5

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR

14.1. UN number

UN-No. (ADR) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not regulated

14.4. Packing group

Packing group (ADR) : Not regulated

14.5. Environmental hazards

Dangerous for the environment : No

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

- Overland transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no REACH candidate substance

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

None.

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

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Prepared by : Nexreg Compliance Inc.

www.Nexreg.com



Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
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.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Resp. Sens. 1	H334	Calculation method
Skin Sens. 1	H317	Calculation method
Carc. 2	H351	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 2	H373	Calculation method

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