



SAFETY DATA SHEET  
Zettex Spraybond X90 HT

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

1.1. Product identifier

Product name Zettex Spraybond X90 HT  
Container size 23kg Canister  
REACH registration notes All chemicals used in this product have been registered under REACH where required.

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 Zettex Europe BV  
Blokweg 8  
4761 RA ZEVENBERGEN  
The Netherlands  
Tel: 0888-938839  
Fax 0888-938888  
info@zettex.nl

1.4. Emergency telephone number

Emergency telephone Zettex Europe BV 031 (0) 888 938 839 (Mon-Fri 09:00-17:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC/1272/2008)

Physical hazards Aerosol 1 - H222, H229  
Health hazards Eye Irrit. 2 - H319 STOT SE 3 - H336  
Environmental hazards Not Classified

2.2. Label elements

Pictogram



Signal word Danger

Hazard statements  
H222 Extremely flammable aerosol.  
H229 Pressurised container: may burst if heated  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

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Precautionary statements      P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211 Do not spray on an open flame or other ignition source.  
P251 Do not pierce or burn, even after use.  
P261 Avoid breathing spray.  
P264 Wash contaminated skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a POISON CENTER/ doctor if you feel unwell. P337+P313 If eye irritation persists: Get medical advice/ attention. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.  
P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information      EUH204 Contains isocyanates. May produce an allergic reaction.

Contains      ETHYL ACETATE

2.3. Other hazards

In use may form flammable/explosive vapour-air mixture. Prolonged and repeated contact with solvents over a long period may lead to permanent health problems. Preparation contains small volumes of isocyanate which may cause allergic reaction and irritation of respiratory system. Medical checks are recommended prior to working with isocyanates and at regular intervals. Contains isocyanates. See information supplied by the manufacturer.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

<b>DIMETHYL ETHER</b>	<b>30-60%</b>	
CAS number: 115-10-6	EC number: 204-065-8	REACH registration number: 01-2119472128-37-0000

Classification  
Flam. Gas 1 - H220  
Press. Gas, Liquefied - H280

<b>ETHYL ACETATE</b>	<b>30-60%</b>	
CAS number: 141-78-6	EC number: 205-500-4	REACH registration number: 01-2119475103-46

Classification  
Flam. Liq. 2 - H225  
Eye Irrit. 2 - H319  
STOT SE 3 - H336

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**SECTION 4: First aid measures**

4.1. Description of first aid measures

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General information	Move affected person to fresh air at once. Show this Safety Data Sheet to the medical personnel.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Keep affected person under observation. If breathing stops, provide artificial respiration. Get medical attention immediately.
Ingestion	Rinse mouth thoroughly with water. Get medical attention. Do not induce vomiting.
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. If adhesive bonding occurs, do not force eyelids apart.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

#### 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. Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.
Inhalation	Coughing, chest tightness, feeling of chest pressure. May cause coughing and difficulties in breathing.
Ingestion	There may be soreness and redness of the mouth and throat.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	There may be irritation and redness. Eyes may water profusely.

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

Notes for the doctor	Show this Safety Data Sheet to the medical personnel. Vapours may cause headache, fatigue, dizziness and nausea. Difficulty in breathing. Avoid breathing vapours.
Specific treatments	If adhesive bonding occurs, do not force eyelids apart.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	Water spray, dry powder or carbon dioxide. Alcohol-resistant foam.
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	Containers can burst violently or explode when heated, due to excessive pressure build-up. Forms explosive mixtures with air. May explode when heated or when exposed to flames or sparks. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.
Hazardous combustion products	Oxides of carbon. Acrid smoke or fumes.

#### 5.3. Advice for firefighters

Protective actions during firefighting	Use water to keep fire exposed containers cool and disperse vapours. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses.
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Special protective equipment for firefighters      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. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid contact with eyes and prolonged skin contact. Avoid inhalation of vapours.

For non-emergency personnel      For the greatest protection, clothing should include anti-static overalls, boots and gloves.

For emergency responders      For the greatest protection, clothing should include anti-static overalls, boots and gloves.

#### 6.2. Environmental precautions

Environmental precautions      Contain the spillage using bunding. Contain spillage with sand, earth or other suitable non-combustible material.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up      Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers. Avoid the spillage or runoff entering drains, sewers or watercourses. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Avoid water contacting spilled material or leaking containers. Approach the spillage from upwind. Take precautionary measures against static discharge. Use only non-sparking tools.

#### 6.4. Reference to other sections

Reference to other sections      For personal protection, see Section 8. For waste disposal, see Section 13. See Section 11 for additional information on health hazards.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Usage precautions      Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented. Wear protective clothing as described in Section 8 of this safety data sheet. Read and follow manufacturer's recommendations. Do not use in confined spaces without adequate ventilation and/or respirator. Do not eat, drink or smoke when using this product.

Advice on general occupational hygiene      Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas. Wash after use and before eating, smoking and using the toilet. Do not smoke in work area. Clean equipment and the work area every day.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage precautions      Under normal conditions of handling and storage, spillages from aerosol containers are unlikely. Do not expose to temperatures exceeding 50°C/122°F. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from freezing and direct sunlight.

Storage class      Flammable compressed gas storage.

#### 7.3. Specific end use(s)

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

Usage description      Adhesive.

### SECTION 8: Exposure Controls/personal protection

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### 8.1. Control parameters

#### Occupational exposure limits

##### DIMETHYL ETHER

Long-term exposure limit (8-hour TWA): WEL 400 ppm 766 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 500 ppm 958 mg/m<sup>3</sup>

##### ETHYL ACETATE

Long-term exposure limit (8-hour TWA): WEL 200 ppm

Short-term exposure limit (15-minute): WEL 400 ppm

WEL = Workplace Exposure Limit

#### DIMETHYL ETHER (CAS: 115-10-6)

PNEC	- Fresh water; 0,155 mg/l - Intermittent release, Water; 1,549 mg/l - Water; 160 mg/l - Marine water; 0,016 mg/l - Sediment (Freshwater); 0,681 mg/l - Sediment (Marinewater); 0,069 mg/l - Soil; 0,045 mg/l
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#### ETHYL ACETATE (CAS: 141-78-6)

PNEC	- Fresh water; 0.26 mg/l - Marine water; 0.026 mg/l - Intermittent release; 1.65 mg/l - Sediment (Freshwater); 1.25 mg/kg - Sediment (Marinewater); 0.125 mg/kg - Soil; 0.24 mg/kg - STP; 650 mg/l
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### 8.2. Exposure controls

#### Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Ensure that the direction of airflow is clearly away from the worker. Use approved respirator if air contamination is above an acceptable level. Observe any occupational exposure limits for the product or ingredients. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof electrical, ventilating and lighting equipment. Ensure operatives are trained to minimise exposure. Refer to protective measures listed in sections 7 and 8.

Personal protection

Wear protective work clothing.

Eye/face protection

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

Hand protection

To protect hands from chemicals, gloves should comply with European Standard EN374. Laminate (PE/PA/PE), 2.5mil (0.06mm), >480 min.

Other skin and body protection

Provide eyewash station. Avoid contact with skin. Wear suitable coveralls to prevent exposure to the skin.

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Hygiene measures	Promptly remove any clothing that becomes contaminated. Wash promptly if skin becomes contaminated. When using do not eat, drink or smoke. Wash hands at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. In confined or poorly-ventilated spaces, a supplied-air respirator must be worn. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. For short term use an AX filter is recommended. Preparation contains small volumes of isocyanate which may cause allergic reaction and irritation of respiratory system. Medical checks are recommended prior to working with isocyanates and at regular intervals.
Thermal hazards	Extremely cold, can cause frost bite.
Environmental exposure controls	Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

**SECTION 9: Physical and Chemical Properties**

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Colourless.
Odour	Sweetish.
Odour threshold	Data lacking.
pH	Not available.
Melting point	Data lacking.
Initial boiling point and range	77°C @ 760 mm Hg for liquid base.
Flash point	Not available.
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	No specific test data are available.
Upper/lower flammability or explosive limits	No information available.
Other flammability	No specific test data are available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.13 @ 20°C for liquid base.
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	700 cP @ 20°C for liquid base.
Explosive properties	In use may form flammable/explosive vapour-air mixture.

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Explosive under the influence of a flame Yes

Oxidising properties Does not meet the criteria for classification as oxidising.

Comments A flash point method is not available for aerosols, but the major hazardous component, the propellant (Dimethyl ether) has a flash point of  $<-41^{\circ}\text{C}$  with flammability limits of 3.3% vol. upper and 26.2% vol. lower.

9.2. Other information

Other information Not available.

**SECTION 10: Stability and reactivity**

10.1. Reactivity

Reactivity Stable under recommended transport or storage conditions.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions In use may form flammable/explosive vapour-air mixture.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up. Avoid the accumulation of vapours in low or confined areas.

10.5. Incompatible materials

Materials to avoid Strong acids. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon.

**SECTION 11: Toxicological information**

11.1. Information on toxicological effects

Other health effects Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Medical checks are recommended prior to working with isocyanates and at regular intervals.

General information Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

Inhalation May cause respiratory system irritation. May cause coughing and difficulties in breathing.

Ingestion Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. May cause nausea, headache, dizziness and intoxication.

Skin contact Prolonged contact may cause redness, irritation and dry skin.

Eye contact Irritating to eyes. There may be irritation and redness. Eyes may water profusely

Acute and chronic health hazards Prolonged and repeated contact with solvents over a long period may lead to permanent health problems. Frequent inhalation of vapours may cause respiratory allergy.

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Route of entry	Inhalation Skin absorption
Target organs	Central nervous system Respiratory system, lungs Skin
Medical symptoms	Narcotic effect. Vapours may cause drowsiness and dizziness.

**SECTION 12: Ecological Information**

12.1. Toxicity

12.2. Persistence and degradability

Persistence and degradability The product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

12.4. Mobility in soil

Mobility The product contains volatile substances which may spread in the atmosphere. Readily absorbed into soil.

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

Other adverse effects Negligible ecotoxicity

Ozone depletion potential

Global warming potential (GWP)

**SECTION 13: Disposal considerations**

13.1. Waste treatment methods

General information Ensure containers are empty before discarding (explosion risk). Dispose of contents/container in accordance with local regulations.

Disposal methods Do not puncture or incinerate, even when empty. Avoid the spillage or runoff entering drains, sewers or watercourses. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

Waste class Full or Partially Empty Canister: 16 05 04 Empty Canister: 15 01 10 (Containing hazardous residue) Empty Canister: 15 01 04 (No hazardous residues)

**SECTION 14: Transport information**

14.1. UN number

UN No. (ADR/RID) 3501

UN No. (IMDG) 3501

UN No. (ICAO) 3501

UN No. (ADN) 3501

14.2. UN proper shipping name



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Proper shipping name (ADR/RID) CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.

Proper shipping name (IMDG) CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.

Proper shipping name (ICAO) CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.

Proper shipping name (ADN) CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.

14.3. Transport hazard class(es)

ADR/RID class 2.1

ADR/RID classification code 8F

ADR/RID label 2.1

IMDG class 2.1

ICAO class/division 2.1

ADN class 2.1

Transport labels



14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-D, S-U

ADR transport category 2

Emergency Action Code 2YE

Hazard Identification Number (ADR/RID) 23

Tunnel restriction code (B/D)

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.

and the IBC Code

**SECTION 15: Regulatory information**

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

National regulations Control of Substances Hazardous to Health Regulations 2002 (as amended).  
Health and Safety at Work etc. Act 1974 (as amended).  
Isocyanates: Health hazards and precautionary measures EH16.

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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). 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 (as amended).
Guidance	Approved Classification and Labelling Guide (Sixth edition) L131. Workplace Exposure Limits EH40.
Authorisations (Title VII Regulation 1907/2006)	No specific authorisations are known for this product.
Restrictions (Title VIII Regulation 1907/2006)	No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

**SECTION 16: Other information**

Classification procedures according to Regulation (EC) 1272/2008	Aerosol 1 - H222, H229: Weight of evidence. Eye Irrit. 2 - H319: Calculation method. STOT SE 3 - H336: Calculation method.
Issued by	Technical Department
Revision date	03/05/2016
Revision	2
Supersedes date	16/02/2016
SDS number	20831
Hazard statements in full	H220 Extremely flammable gas. H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H229 Pressurised container: may burst if heated H280 Contains gas under pressure; may explode if heated. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

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.