



DRIVING SURFACE PERFECTION

# STRONGHOLD 915 50 SECOND TPO ADHESIVE (SEMI-RIGID PLASTIC REPAIR BLACK)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
SDS Ref. (EU): SH915-SDS  
Issue date: 17/12/2015 Revision date: 13/08/2020 Supersedes version of: 26/07/2019 Version: 3.0

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : STRONGHOLD 915 50 SECOND TPO ADHESIVE (SEMI-RIGID PLASTIC REPAIR BLACK)  
UFI : 5JY0-H0DT-W001-JCQP  
Product code : SH9151, SH9152  
Product group : Adhesives, sealants

#### 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, Professional use  
Use of the substance/mixture : Adhesives, sealants  
Function or use category : bonding agent

##### 1.2.2. Uses advised against

Restrictions on use : Consumer uses: Private households (= general public = consumers)

#### 1.3. Details of the supplier of the safety data sheet

##### Manufacturer

U-POL Limited  
Denington Road  
NN8 2QH Wellingborough - United Kingdom  
T +44 (0) 1933 230310  
[technicalsupport@u-pol.com](mailto:technicalsupport@u-pol.com) - [www.u-pol.com](http://www.u-pol.com)

##### Importer

U-POL Netherlands B.V.  
Hoogoorddreef 15  
1101BA Amsterdam - Netherlands  
T +31 20 240 2216  
[technicalsupport@u-pol.com](mailto:technicalsupport@u-pol.com) - [www.u-pol.com](http://www.u-pol.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: +44 (0) 870 8200418 (24 hrs)

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	NHS England, Scotland & Wales	-	Call 111 or a Doctor	In Northern Ireland, contact your local GP or pharmacist during normal hours ( <a href="http://www.gpoutofhours.hscni.net">www.gpoutofhours.hscni.net</a> )

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 2 H315  
Serious eye damage/eye irritation, Category 1 H318  
Skin sensitisation, Category 1 H317  
Germ cell mutagenicity, Category 2 H341

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Reproductive toxicity, Category 1B	H360
Specific target organ toxicity — Single exposure, Category 2	H371
Specific target organ toxicity — Repeated exposure, Category 2	H373
Hazardous to the aquatic environment — Chronic Hazard, Category 3	H412

Full text of H statements : see section 16

### Adverse physicochemical, human health and environmental effects

Suspected of causing genetic defects. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. May cause damage to organs. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.

## 2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

Contains

Hazard statements (CLP)

Precautionary statements (CLP)

- : Danger
- : formaldehyde, polymer with benzeneamine, hydrogenated; 4,4'-methylenebis(cyclohexylamine), liquid; dibutyltin dilaurate
- : H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H318 - Causes serious eye damage.  
H341 - Suspected of causing genetic defects.  
H360 - May damage fertility or the unborn child.  
H371 - May cause damage to organs.  
H373 - May cause damage to organs through prolonged or repeated exposure.  
H412 - Harmful to aquatic life with long lasting effects.
- : P261 - Avoid breathing vapours, fume.  
P264 - Wash hands thoroughly after handling.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.  
P308+P313 - IF exposed or concerned: Get medical advice/attention.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.

## 2.3. Other hazards

Component	
4,4'-methylenebis(cyclohexylamine), liquid (1761-71-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
dibutyltin dilaurate (77-58-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

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### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
formaldehyde, polymer with benzeneamine, hydrogenated	(CAS-No.) 135108-88-2 (EC-No.) 603-894-6	0.3 – 2.5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 3, H412
4,4'-methylenebis(cyclohexylamine), liquid	(CAS-No.) 1761-71-3 (EC-No.) 217-168-8 (REACH-no) 01-2119541673-38	0.3 – 2.5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 STOT RE 2, H373 Aquatic Chronic 2, H411 (M=0)
dibutyltin dilaurate	(CAS-No.) 77-58-7 (EC-No.) 201-039-8 (EC Index-No.) 050-030-00-3 (REACH-no) 01-2119496068-27	1 – 2.5	Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Repr. 1B, H360FD STOT SE 1, H370 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
diethylmethylbenzenediamine (Note C)	(CAS-No.) 68479-98-1 (EC-No.) 270-877-4 (EC Index-No.) 612-130-00-0 (REACH-no) 01-2119486805-25	0.25 – 1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Eye Irrit. 2, H319 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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 general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact	: Burns. May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Protective clothing. Gloves.  
Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe vapours, fume.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

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

For containment : Contain released product, pump into suitable containers. Collect spillage.  
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe vapours, fume. Avoid contact with skin and eyes.  
Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

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Storage temperature : < 25 °C

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

dibutyltin dilaurate (77-58-7)	
<b>United Kingdom - Occupational Exposure Limits</b>	
WEL TWA (OEL TWA) [1]	0.1 mg/m <sup>3</sup>
WEL STEL (OEL STEL)	0.2 mg/m <sup>3</sup>

#### Exposure limit values for the other components

carbon black (1333-86-4)	
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Carbon black
OEL TWA [1]	3 mg/m <sup>3</sup> I (Inhalable Fraction)
OEL STEL	7 mg/m <sup>3</sup>
Regulatory reference	Chemical Agents Code of Practice 2020
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Carbon black
WEL TWA (OEL TWA) [1]	3.5 mg/m <sup>3</sup>
WEL STEL (OEL STEL)	7 mg/m <sup>3</sup>
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

ethyl acetate (141-78-6)	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	Ethyl acetate
IOEL TWA	734 mg/m <sup>3</sup>
IOEL TWA [ppm]	200 ppm
IOEL STEL	1468 mg/m <sup>3</sup>
IOEL STEL [ppm]	400 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Ethyl acetate
OEL TWA [1]	734 mg/m <sup>3</sup>
OEL TWA [2]	200 ppm
OEL STEL	1468 mg/m <sup>3</sup>
OEL STEL [ppm]	400 ppm
Notes (IE)	IOELV (Indicative Occupational Exposure Limit Values)

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ethyl acetate (141-78-6)		
Regulatory reference	Chemical Agents Code of Practice 2020	
United Kingdom - Occupational Exposure Limits		
Local name	Ethyl acetate	
WEL TWA (OEL TWA) [1]	734 mg/m <sup>3</sup>	
WEL TWA (OEL TWA) [2]	200 ppm	
WEL STEL (OEL STEL)	1468 mg/m <sup>3</sup>	
WEL STEL (OEL STEL) [ppm]	400 ppm	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	

### 8.1.2. Recommended monitoring procedures

No additional information available

### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

formaldehyde, polymer with benzeneamine, hydrogenated (135108-88-2)		
DNEL/DMEL (Workers)		
Acute - systemic effects, dermal	6 mg/kg bodyweight/day	
Acute - systemic effects, inhalation	2 mg/m <sup>3</sup>	
Long-term - systemic effects, dermal	2 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	0.2 mg/m <sup>3</sup>	
PNEC (Water)		
PNEC aqua (freshwater)	0.015 mg/l	
PNEC aqua (marine water)	0.0015 mg/l	
PNEC aqua (intermittent, freshwater)	0.15 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	15 mg/kg dwt	
PNEC sediment (marine water)	1.5 mg/kg dwt	
PNEC (Soil)		
PNEC soil	1.8 mg/kg dwt	
PNEC (STP)		
PNEC sewage treatment plant	1.9 mg/l	

4,4'-methylenebis(cyclohexylamine), liquid (1761-71-3)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	0.1 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	1 mg/m <sup>3</sup>	
DNEL/DMEL (General population)		
Long-term - systemic effects, oral	0.06 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	0.21 mg/m <sup>3</sup>	
Long-term - systemic effects, dermal	0.06 mg/kg bodyweight/day	

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<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.08 mg/l
PNEC aqua (marine water)	0.008 mg/l
PNEC aqua (intermittent, freshwater)	0.08 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	137 mg/kg dwt
PNEC sediment (marine water)	13.7 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	27.2 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	3.2 mg/l

<b>dibutyltin dilaurate (77-58-7)</b>	
<b>DNEL/DMEL (Workers)</b>	
Acute - systemic effects, dermal	2.08 mg/kg bodyweight/day
Long-term - systemic effects, dermal	0.42 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.02 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Acute - systemic effects, dermal	1 mg/kg bodyweight/day
Acute - systemic effects, inhalation	0.04 mg/m <sup>3</sup>
Acute - systemic effects, oral	0.02 mg/kg bodyweight/day
Long-term - systemic effects, oral	0.004 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.006 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.16 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.000463 mg/l
PNEC aqua (marine water)	0.0000463 mg/l
PNEC aqua (intermittent, freshwater)	0.00463 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.05
PNEC sediment (marine water)	0.005
<b>PNEC (Soil)</b>	
PNEC soil	0.0407
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	0.2 mg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	100 mg/l

### 8.1.5. Control banding

No additional information available

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### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

**Appropriate engineering controls:**

Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

**Personal protective equipment symbol(s):**



##### 8.2.2.1. Eye and face protection

**Eye protection:**

Safety glasses

##### 8.2.2.2. Skin protection

**Skin and body protection:**

Wear suitable protective clothing

**Hand protection:**

Protective gloves

**Other skin protection**

**Materials for protective clothing:**

Impermeable clothing

##### 8.2.2.3. Respiratory protection

**Respiratory protection:**

[In case of inadequate ventilation] wear respiratory protection.

##### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

**Environmental exposure controls:**

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Black.
Appearance	: Liquid.
Odour	: aromatic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable



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Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: > 100 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Reacts with water. soluble in most organic solvents.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1.1 g/cm <sup>3</sup>
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

### 9.2. Other information

VOC content : 201 g/l

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

VOC content : 201 g/l

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

#### carbon black (1333-86-4)

LD50 oral rat	> 8000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 4.6 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Experimental value, Inhalation (dust))

#### dipropylene glycol (25265-71-8)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: EPA OPP 81-1 (Acute Oral Toxicity)
LD50 dermal rabbit	> 5010 mg/kg bodyweight Animal: rabbit, Guideline: EPA OPP 81-2 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 2.34 mg/l air Animal: rat, Guideline: EPA OPP 81-3 (Acute inhalation toxicity)

#### bis(2-ethylhexyl) terephthalate (6422-86-2)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: other:TSCA FHSA Regulations (1979): 16 CFR Part 1500.40 (Hazardous Substances and Articles, Administration and Enforcement Regulations)
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#### formaldehyde, polymer with benzeneamine, hydrogenated (135108-88-2)

LD50 oral rat	> 1000 mg/kg
LD50 dermal rabbit	> 1000 mg/kg bodyweight Animal: rabbit, Guideline: other:40CFR Part 158 Series 81-2, EPA Pesticide Assessment Guidelines. F 1984

#### 4,4'-methylenebis(cyclohexylamine), liquid (1761-71-3)

LD50 oral rat	380 mg/kg (EPA OPP 81-1: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	2110 mg/kg bodyweight Animal: rabbit, Guideline: EPA OPP 81-2 (Acute Dermal Toxicity)

#### propylene carbonate (108-32-7)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
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#### zeolite, cuboidal, crystalline, synthetic, non-fibrous

LD50 oral rat	> 5110 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

#### dibutyltin dilaurate (77-58-7)

LD50 oral rat	2071 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1207 - 5106
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))

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<b>ethyl acetate (141-78-6)</b>	
LD50 oral rat	10200 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral)
LD50 oral	4934 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 20000 mg/kg bodyweight Animal: rabbit, Animal sex: male

<b>silicon dioxide, amorphous (7631-86-9)</b>	
LD50 oral rat	> 10000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Dermal)

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Suspected of causing genetic defects.
Carcinogenicity	: Not classified
Reproductive toxicity	: May damage fertility or the unborn child.

<b>dibutyltin dilaurate (77-58-7)</b>	
NOAEL (animal/male, F0/P)	1.9 – 2.3 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F0/P)	1.7 – 2.4 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure : May cause damage to organs.

<b>dibutyltin dilaurate (77-58-7)</b>	
STOT-single exposure	Causes damage to organs (thymus).

<b>ethyl acetate (141-78-6)</b>	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

<b>formaldehyde, polymer with benzeneamine, hydrogenated (135108-88-2)</b>	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

<b>4,4'-methylenebis(cyclohexylamine), liquid (1761-71-3)</b>	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

<b>diethylmethylbenzenediamine (68479-98-1)</b>	
LOAEL (dermal, rat/rabbit, 90 days)	≥ 10 mg/kg bodyweight Animal: rabbit
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

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<b>propylene carbonate (108-32-7)</b>	
NOAEL (oral, rat, 90 days)	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

<b>dibutyltin dilaurate (77-58-7)</b>	
STOT-repeated exposure	Causes damage to organs (thymus) through prolonged or repeated exposure.

<b>ethyl acetate (141-78-6)</b>	
LOAEL (oral, rat, 90 days)	3600 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 795.2600 (Subchronic Oral Toxicity Test)
NOAEL (oral, rat, 90 days)	900 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 795.2600 (Subchronic Oral Toxicity Test)

Aspiration hazard : Not classified

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.  
Hazardous to the aquatic environment, short-term (acute) : Not classified  
Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

<b>formaldehyde, polymer with benzeneamine, hydrogenated (135108-88-2)</b>	
LC50 - Fish [1]	63 mg/l Test organisms (species): Poecilia reticulata
EC50 - Crustacea [1]	6.84 mg/l (Daphnia magna)
EC50 72h - Algae [1]	43.94 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

<b>4,4'-methylenebis(cyclohexylamine), liquid (1761-71-3)</b>	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Leuciscus idus
LC50 - Fish [2]	68 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	7.07 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	6.84 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	140 – 200 mg/l Test organisms (species):
EC50 72h - Algae [2]	141.42 – 200 mg/l Test organisms (species):
ErC50 algae	140 – 200 mg/l (DIN 38412-9, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
NOEC (chronic)	4 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 1 mg/l Test organisms (species): other:freshwater fish

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<b>diethylmethylenediamine (68479-98-1)</b>	
EC50 - Crustacea [1]	0.5 mg/l Test organisms (species): Daphnia magna

<b>dibutyltin dilaurate (77-58-7)</b>	
LC50 - Fish [1]	3.1 mg/l
EC50 - Crustacea [1]	1.7 – 3.4 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	< 463 µg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 1 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
ErC50 algae	1 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Tin)

### 12.2. Persistence and degradability

<b>4,4'-methylenebis(cyclohexylamine), liquid (1761-71-3)</b>	
Persistence and degradability	Not readily biodegradable in water.

<b>dibutyltin dilaurate (77-58-7)</b>	
Persistence and degradability	Not readily biodegradable in water.

### 12.3. Bioaccumulative potential

<b>4,4'-methylenebis(cyclohexylamine), liquid (1761-71-3)</b>	
BCF - Fish [1]	< 60 (OECD 305: Bioconcentration: Flow-Through Fish Test, 60 day(s), Cyprinus carpio, Flow-through system, Fresh water, Read-across, GLP)
Partition coefficient n-octanol/water (Log Pow)	2.03 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

<b>dibutyltin dilaurate (77-58-7)</b>	
Partition coefficient n-octanol/water (Log Pow)	4.44 (Practical experience/observation, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20.8 °C)
Bioaccumulative potential	Potential for bioaccumulation ( $4 \geq \text{Log Kow} \leq 5$ ).

### 12.4. Mobility in soil

<b>4,4'-methylenebis(cyclohexylamine), liquid (1761-71-3)</b>	
Partition coefficient n-octanol/water (Log Koc)	3.25 (log Koc, Other, Calculated value)
Ecology - soil	Low potential for mobility in soil.

<b>dibutyltin dilaurate (77-58-7)</b>	
Ecology - soil	No (test)data on mobility of the substance available.

### 12.5. Results of PBT and vPvB assessment

<b>Component</b>	
4,4'-methylenebis(cyclohexylamine), liquid (1761-71-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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dibutyltin dilaurate (77-58-7)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII  
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.  
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

### 14.1. UN number or ID number

UN-No. (ADR) : Not regulated  
UN-No. (IMDG) : Not regulated  
UN-No. (IATA) : Not regulated  
UN-No. (ADN) : Not regulated  
UN-No. (RID) : Not regulated

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated  
Proper Shipping Name (IMDG) : Not regulated  
Proper Shipping Name (IATA) : Not regulated  
Proper Shipping Name (ADN) : Not regulated  
Proper Shipping Name (RID) : Not regulated

### 14.3. Transport hazard class(es)

**ADR**  
Transport hazard class(es) (ADR) : Not regulated  
**IMDG**  
Transport hazard class(es) (IMDG) : Not regulated  
**IATA**  
Transport hazard class(es) (IATA) : Not regulated  
**ADN**  
Transport hazard class(es) (ADN) : Not regulated  
**RID**  
Transport hazard class(es) (RID) : Not regulated

### 14.4. Packing group

Packing group (ADR) : Not regulated  
Packing group (IMDG) : Not regulated  
Packing group (IATA) : Not regulated  
Packing group (ADN) : Not regulated  
Packing group (RID) : Not regulated

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### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on	Entry title or description
3(b)	STRONGHOLD 915 50 SECOND TPO ADHESIVE (SEMI-RIGID PLASTIC REPAIR BLACK) ; diethylmethylbenzenediamine ; formaldehyde, polymer with benzeneamine, hydrogenated ; 4,4'-methylenebis(cyclohexylamine), liquid ; dibutyltin dilaurate	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	STRONGHOLD 915 50 SECOND TPO ADHESIVE (SEMI-RIGID PLASTIC REPAIR BLACK) ; diethylmethylbenzenediamine ; formaldehyde, polymer with benzeneamine, hydrogenated ; 4,4'-methylenebis(cyclohexylamine), liquid ; dibutyltin dilaurate	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
30.	dibutyltin dilaurate	Substances which are classified as reproductive toxicant category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 5 or Appendix 6, respectively.

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Substances subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals: Dibutyltin compounds (77-58-7)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 201 g/l

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### 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

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 1	Specific target organ toxicity — single exposure, Category 1
STOT SE 2	Specific target organ toxicity — Single exposure, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H360	May damage fertility or the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H370	Causes damage to organs.
H371	May cause damage to organs.



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H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

For professional use only.

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