



**SAFETY DATA SHEET**  
**Dfense Block SWA (Surface Wetting Agent) Hardener**

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

**1.1. Product identifier**

**Product name** Dfense Block SWA (Surface Wetting Agent) Hardener

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

**Identified uses** Two-component, epoxy-based adhesive.

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

**Supplier**

ITW Performance Polymers  
 Bay 150  
 Shannon Industrial Estate  
 Co. Clare  
 Ireland  
 V14 DF82  
 353(61)771500  
 353(61)471285  
 mail@itwpp.com

**1.4. Emergency telephone number**

**Emergency telephone** +44(0)1235 239 670 (24h)

**SECTION 2: Hazards identification**

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

**Classification (EC 1272/2008)**

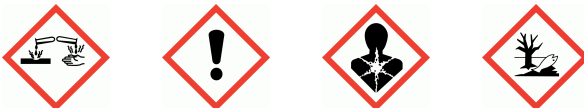
**Physical hazards** Not Classified

**Health hazards** Acute Tox. 4 - H302 Skin Corr. 1A - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Repr. 2 - H361fd STOT SE 1 - H370

**Environmental hazards** Aquatic Chronic 2 - H411

**2.2. Label elements**

**Pictogram**



**Signal word**

Danger

**Hazard statements**

H302 Harmful if swallowed.  
 H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
 H370 Causes damage to organs .  
 H411 Toxic to aquatic life with long lasting effects.

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<b>Precautionary statements</b>	<p>P270 Do not eat, drink or smoke when using this product.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/ attention.</p>
<b>Contains</b>	<p>Butadiene acrylonitrile copolymer, m-XYLYLENEDIAMINE, 4-TERT.BUTYL PHENOL, DIETHYLENTRIAMINE, 2,2,4-TRIMETHYLHEXANE-1,6 DIAMINE, 2-PIPERAZIN-1-YLETHYLAMINE</p>
<b>Supplementary precautionary statements</b>	<p>P201 Obtain special instructions before use.</p> <p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P260 Do not breathe vapour/ spray.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P391 Collect spillage.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>

### 2.3. Other hazards

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

##### 3.2. Mixtures

<b>Butadiene acrylonitrile copolymer</b>	<b>30-60%</b>
CAS number: 68683-29-4	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Skin Sens. 1 - H317	
Aquatic Chronic 4 - H413	
<b>4-TERT.BUTYL PHENOL</b>	<b>10-30%</b>
CAS number: 98-54-4	
EC number: 202-679-0	
M factor (Chronic) = 1	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	
Repr. 2 - H361f	
Aquatic Chronic 1 - H410	

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<b>m-XYLYLENEDIAMINE</b>		<b>10-30%</b>
CAS number: 1477-55-0	EC number: 216-032-5	REACH registration number: 01-2119480150-50-0000
<b>Classification</b>		
Acute Tox. 4 - H302		
Acute Tox. 4 - H332		
Skin Corr. 1A - H314		
Eye Dam. 1 - H318		
Skin Sens. 1 - H317		
Aquatic Chronic 3 - H412		
<b>2-PIPERAZIN-1-YLETHYLAMINE</b>		<b>5-10%</b>
CAS number: 140-31-8	EC number: 205-411-0	REACH registration number: 01-2119471486-30-0003
<b>Classification</b>		
Acute Tox. 4 - H302		
Acute Tox. 4 - H312		
Skin Corr. 1B - H314		
Eye Dam. 1 - H318		
Skin Sens. 1 - H317		
Aquatic Chronic 3 - H412		
<b>2,2,4-TRIMETHYLHEXANE-1,6 DIAMINE</b>		<b>5-10%</b>
CAS number: 3236-53-1		
<b>Classification</b>		
Acute Tox. 4 - H302		
Skin Corr. 1B - H314		
Skin Sens. 1 - H317		
Aquatic Chronic 3 - H412		
<b>DIETHYLENETRIAMINE</b>		<b>5-10%</b>
CAS number: 111-40-0	EC number: 203-865-4	REACH registration number: 01-2119473793-27-0000
<b>Classification</b>		
Acute Tox. 4 - H302		
Acute Tox. 4 - H312		
Skin Corr. 1B - H314		
Eye Dam. 1 - H318		
Skin Sens. 1 - H317		

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<b>TITANIUM DIOXIDE</b>		<b>&lt;1%</b>
CAS number: 13463-67-7	EC number: 236-675-5	REACH registration number: 01-2119489379-17-0000
<b>Classification</b>		
Not Classified		

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration.
<b>Ingestion</b>	DO NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person. Avoid vomiting and stomach flushing because of the risk of aspiration. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	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 Safety Data Sheet to the medical personnel.

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

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

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with carbon dioxide or dry powder.
<b>Unsuitable extinguishing media</b>	Foam. Water.

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

#### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Evacuate area of unprotected personnel. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses.
<b>Special protective equipment for firefighters</b>	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

<b>Personal precautions</b>	Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Ensure suitable respiratory protection is worn during removal of spillages in confined areas.
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#### 6.2. Environmental precautions

<b>Environmental precautions</b>	Do not discharge into drains or watercourses or onto the ground.
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#### 6.3. Methods and material for containment and cleaning up

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**Methods for cleaning up** Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. Provide adequate ventilation. Flush contaminated area with plenty of water.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Provide adequate ventilation. Avoid contact with skin and eyes. Do not reuse empty containers. Avoid breathing vapours.

**Advice on general occupational hygiene** Do not eat, drink or smoke when using this product. Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

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

**Storage precautions** Store in a cool and well-ventilated place. Keep container tightly closed. Store away from the following materials: Acids. Oxidising materials. Store away from incompatible materials (see Section 10).

### 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

#### DIETHYLENETRIAMINE

Long-term exposure limit (8-hour TWA): WEL 1 ppm(Sk) 4.3 mg/m<sup>3</sup>(Sk)

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

#### TITANIUM DIOXIDE

Long-term exposure limit (8-hour TWA): 10 mg/m<sup>3</sup> total dust

WEL = Workplace Exposure Limit

#### 2-PIPERAZIN-1-YLETHYLAMINE (CAS: 140-31-8)

#### DNEL

Workers - Inhalation; Long term systemic effects: 3.6 mg/m<sup>3</sup>  
 Workers - Inhalation; Short term systemic effects: 21.4 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 3.3 mg/kg/day  
 Workers - Dermal; Long term systemic effects: 20 mg/kg/day  
 Workers - Dermal; Long term local effects: 0.006 mg/cm<sup>2</sup>

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

#### Eye/face protection

The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

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<b>Hand protection</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 8 hours.
<b>Other skin and body protection</b>	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Wear suitable coveralls to prevent exposure to the skin. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.
<b>Hygiene measures</b>	Promptly remove any clothing that becomes wet or contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet.
<b>Respiratory protection</b>	If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Wear a respirator fitted with the following cartridge: Gas filter, type A2. Organic vapour filter. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

### SECTION 9: Physical and Chemical Properties

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

<b>Appearance</b>	solid
<b>Colour</b>	Amber.
<b>Odour</b>	Fishy. Ammonia.
<b>pH</b>	pH (concentrated solution): alkaline
<b>Melting point</b>	Not determined.
<b>Initial boiling point and range</b>	100°C @
<b>Flash point</b>	>93.3°C
<b>Evaporation rate</b>	<1
<b>Vapour pressure</b>	<21 mm Hg @ °C
<b>Vapour density</b>	>1
<b>Relative density</b>	0.99g/ml
<b>Solubility(ies)</b>	>30% @ °C

#### 9.2. Other information

<b>Volatility</b>	Not determined.
<b>Volatile organic compound</b>	Not determined.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
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#### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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#### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	No potentially hazardous reactions known.
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### 10.4. Conditions to avoid

**Conditions to avoid** Avoid contact with strong oxidising agents. Avoid heat.

### 10.5. Incompatible materials

**Materials to avoid** Acids - oxidising. Chemically-active metals. Nitrous acid and other nitrosating agents. Organic peroxides/hydroperoxides.

### 10.6. Hazardous decomposition products

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

ATE oral (mg/kg) 166,667.0

#### Acute toxicity - dermal

ATE dermal (mg/kg) 110,000.0

#### Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 1,100.0

### 2,2,4-TRIMETHYLHEXANE-1,6 DIAMINE

#### Acute toxicity - oral

ATE oral (mg/kg) 500.0

## SECTION 12: Ecological Information

### 12.1. Toxicity

### 12.2. Persistence and degradability

**Persistence and degradability** There are no data on the degradability of this product.

### 12.3. Bioaccumulative potential

### 12.4. Mobility in soil

### 12.5. Results of PBT and vPvB assessment

### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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

## SECTION 14: Transport information

### 14.1. UN number

UN No. (ADR/RID) 3267

UN No. (IMDG) 3267

UN No. (ICAO) 3267

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (NONYLPHENOL, 2-PIPERAZIN-1-YLETHYLAMINE)

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**Proper shipping name (IMDG)** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (NONYLPHENOL, 2-PIPERAZIN-1-YLETHYLAMINE)

**Proper shipping name (ICAO)** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (NONYLPHENOL, 2-PIPERAZIN-1-YLETHYLAMINE)

**Proper shipping name (ADN)** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (NONYLPHENOL, 2-PIPERAZIN-1-YLETHYLAMINE)

### 14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID label 8

IMDG class 8

ICAO class/division 8

#### Transport labels



### 14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

IMDG Code segregation group 18. Alkalis

EmS F-A, S-B

Emergency Action Code 2X

Hazard Identification Number (ADR/RID) 80

Tunnel restriction code (E)

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

#### SECTION 15: Regulatory information

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

**EU legislation** 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).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.



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### SECTION 16: Other information

<b>Revision comments</b>	Revised classification.
<b>Revision date</b>	03/04/2018
<b>Revision</b>	6
<b>Supersedes date</b>	24/11/2015
<b>Hazard statements in full</b>	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. H332 Harmful if inhaled. H361f Suspected of damaging fertility. H361fd Suspected of damaging fertility. Suspected of damaging the unborn child. H370 Causes damage to organs . 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. H413 May cause long lasting harmful effects to aquatic life.

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.