



**SAFETY DATA SHEET  
SPRAYABLE CERAMIC HARDENER.**

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

**1.1. Product identifier**

**Product name** SPRAYABLE CERAMIC HARDENER.

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

**Identified uses** Hardener.

**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 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Repr. 2 - H361f

**Environmental hazards** Aquatic Chronic 3 - H412

**Human health** Corrosive to skin and eyes. Corrosive. Prolonged contact causes serious eye and tissue damage.

**2.2. Label elements**

**Pictogram**



**Signal word**

**Danger**

## SPRAYABLE CERAMIC HARDENER.

<b>Hazard statements</b>	H302+H332 Harmful if swallowed or if inhaled. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H361f Suspected of damaging fertility. H412 Harmful to aquatic life with long lasting effects.
<b>Precautionary statements</b>	P261 Avoid breathing vapour/ spray. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 IF exposed or concerned: Get medical advice/ attention.
<b>Contains</b>	BENZYL ALCOHOL, ISOPHORONEDIAMINE, DIETHYLENETRIAMINE, 4,4'-ISOPROPYLIDENEDIPHENOL
<b>Supplementary precautionary statements</b>	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/ doctor if you feel unwell. P321 Specific treatment (see medical advice on this label). P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P363 Wash contaminated clothing before reuse. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.

### 2.3. Other hazards

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

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>BENZYL ALCOHOL</b>	<b>30-60%</b>
CAS number: 100-51-6	EC number: 202-859-9
<b>Classification</b>	
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	

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<b>ISOPHORONEDIAMINE</b>			<b>10-30%</b>
CAS number: 2855-13-2	EC number: 220-666-8		
<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>DIETHYLENETRIAMINE</b>			<b>10-30%</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			
<b>4,4'-ISOPROPYLIDENEDIPHENOL</b>			<b>1-5%</b>
CAS number: 80-05-7	EC number: 201-245-8	REACH registration number: 01-2119457856-23-0000	
<b>Classification</b>			
Eye Dam. 1 - H318			
Skin Sens. 1 - H317			
Repr. 2 - H361f			
STOT SE 3 - H335			

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>General information</b>	Avoid inhalation of vapours and contact with skin and eyes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Do not induce vomiting. Give milk instead of water if readily available. Get medical attention immediately.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention if irritation persists after washing.

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

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
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## SPRAYABLE CERAMIC HARDENER.

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

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

### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

**Suitable extinguishing media** Extinguish with foam, carbon dioxide or dry powder.

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

**Specific hazards** Irritating gases or vapours.

#### 5.3. Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapours. Keep up-wind to avoid fumes. Do not use water jet as an extinguisher, as this will spread the fire. Control run-off water by containing and keeping it out of sewers and watercourses.

**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** Eliminate all sources of ignition. Provide adequate ventilation. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

#### 6.2. Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

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

**Methods for cleaning up** Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

#### 6.4. Reference to other sections

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

### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

**Usage precautions** Handle and open container with care. Use only in well-ventilated areas. Avoid inhalation of vapours. Avoid contact with skin and eyes. Keep away from heat, sparks and open flame. Do not eat, drink or smoke when using the product. Do not use in confined spaces without adequate ventilation and/or respirator. Good personal hygiene procedures should be implemented.

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

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place. 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**

## SPRAYABLE CERAMIC HARDENER.

### 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

WEL = Workplace Exposure Limit

#### Ingredient comments

WEL = Workplace Exposure Limits

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

#### Hand protection

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.

#### Other skin and body protection

Wear chemical protective suit.

#### Hygiene measures

Provide eyewash station and safety shower. Keep away from food, drink and animal feeding stuffs. Wash promptly if skin becomes contaminated. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. When using do not eat, drink or smoke.

#### Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. Check that the respirator fits tightly and the filter is changed regularly. Wear a respirator fitted with the following cartridge: Gas filter, type A2. 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

Appearance	Liquid.
Colour	Gold.
Odour	Ammonia.
Initial boiling point and range	>95°C @
Flash point	>90°C
Relative density	1.04 @ 20°C
Solubility(ies)	Miscible with water.

## SPRAYABLE CERAMIC HARDENER.

**Viscosity** 50-100 mPa s @ 20°C

### 9.2. Other information

**Other information** Not available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Not available.

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight.

### 10.5. Incompatible materials

**Materials to avoid** No specific material or group of materials is likely to react with the product to produce a hazardous situation.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

**ATE oral (mg/kg)** 815.11

#### Acute toxicity - dermal

**ATE dermal (mg/kg)** 4,023.19

#### Acute toxicity - inhalation

**ATE inhalation (gases ppm)** 13,235.29

**ATE inhalation (vapours mg/l)** 32.35

**ATE inhalation (dusts/mists mg/l)** 4.41

**General information** Corrosive. Prolonged contact causes serious eye and tissue damage.

**Inhalation** Harmful by inhalation.

**Ingestion** Keep out of the reach of children. Harmful if swallowed.

**Skin contact** Causes burns. Corrosive. Prolonged contact causes serious tissue damage. May cause sensitisation by skin contact. May cause sensitisation or allergic reactions in sensitive individuals.

**Eye contact** Causes burns. This product is strongly corrosive. Immediate first aid is imperative.

## SPRAYABLE CERAMIC HARDENER.

**Route of entry** Inhalation Skin absorption Ingestion.

### SECTION 12: Ecological Information

**Ecotoxicity** Avoid release to the environment.

#### 12.1. Toxicity

**Toxicity** Not considered toxic to fish.

#### 12.2. Persistence and degradability

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

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

#### 12.4. Mobility in soil

**Mobility** Do not discharge into drains or watercourses or onto the ground.

#### 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** Not available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**General information** When handling waste, the safety precautions applying to handling of the product should be considered.

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

**Waste class** 08 04 99

### SECTION 14: Transport information

#### 14.1. UN number

**UN No. (ADR/RID)** 2735

**UN No. (IMDG)** 2735

**UN No. (ICAO)** 2735

#### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** AMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, DIETHYLENETRIAMINE)

**Proper shipping name (IMDG)** AMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, DIETHYLENETRIAMINE)

**Proper shipping name (ICAO)** AMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, DIETHYLENETRIAMINE)

**Proper shipping name (ADN)** AMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, DIETHYLENETRIAMINE)

#### 14.3. Transport hazard class(es)

**ADR/RID class** 8

**ADR/RID label** 8

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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**

No.

**14.6. Special precautions for user**

EmS F-A, S-B

Emergency Action Code 2X

Hazard Identification Number 80  
(ADR/RID)

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.

**SECTION 16: Other information**

Revision date 03/04/2018

Revision 9

Supersedes date 28/04/2016

**Hazard statements in full**

H302 Harmful if swallowed.  
 H312 Harmful in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation.  
 H361f Suspected of damaging fertility.  
 H412 Harmful to aquatic life with long lasting effects.



## **SPRAYABLE CERAMIC HARDENER.**

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.