



**SAFETY DATA SHEET**  
**IRABOND BC 50 HARDENER**

## 1. Identification

### Product identifier

**Product name** IRABOND BC 50 HARDENER

### Recommended use of the chemical and restrictions on use

**Application** Hardener.

### 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

### Emergency telephone number

**Emergency telephone** +44 (0) 1235 239670

## 2. Hazard(s) identification

### Classification of the substance or mixture

**Physical hazards** Not Classified

**Health hazards** Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317

**Environmental hazards** Aquatic Chronic 2 - H411

### Label elements

#### Pictogram



#### Signal word

Danger

#### Hazard statements

H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.

## IRABOND BC 50 HARDENER

### Precautionary statements

P260 Do not breathe vapor/ spray.  
 P261 Avoid breathing vapor/ spray.  
 P264 Wash contaminated skin thoroughly after handling.  
 P272 Contaminated work clothing must not be allowed out of the workplace.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.  
 P302+P352 If on skin: Wash with plenty of water.  
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
 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.  
 P310 Immediately call a poison center/ doctor.  
 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.  
 P391 Collect spillage.  
 P405 Store locked up.  
 P501 Dispose of contents/ container in accordance with national regulations.

### Contains

POLYETHYLENEPOLYAMINES, PENTAETHYLENEHEXAMINE

### Other hazards

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

### 3. Composition/information on ingredients

#### Mixtures

<b>POLYETHYLENEPOLYAMINES</b>	<b>10-30%</b>
CAS number: —	
M factor (Acute) = 1	M factor (Chronic) = 1
<b>Classification</b>	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

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<b>PENTAETHYLENEHEXAMINE</b>	<b>1-5%</b>
CAS number: 4067-16-7	
M factor (Acute) = 1	M factor (Chronic) = 1
<b>Classification</b> Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	

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

### 4. First-aid measures

#### Description of first aid measures

<b>General information</b>	Avoid 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 plenty of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting. 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. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

#### 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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#### Indication of immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	No specific recommendations. If in doubt, get medical attention promptly.
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### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with foam, carbon dioxide or dry powder.
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#### Special hazards arising from the substance or mixture

<b>Specific hazards</b>	Toxic gases or vapors.
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#### Advice for firefighters

<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapors. Keep up-wind to avoid fumes. Do not use water jet as an extinguisher, as this will spread the fire.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

### 6. Accidental release measures

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

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**Personal precautions** Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Use suitable respiratory protection if ventilation is inadequate.

### Environmental precautions

**Environmental precautions** Avoid 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.

### 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 labeled with correct contents and hazard symbol.

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

## 7. Handling and storage

### Precautions for safe handling

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

### 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).

### Specific end uses(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

## 8. Exposure Controls/personal protection

**Ingredient comments** No exposure limits known for ingredient(s).

### 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 or face shield. Personal protective equipment for eye and face protection should comply with OSHA 1910.133.

**Hand protection** Wear protective gloves made of the following material: Rubber (natural, latex). Neoprene. Polyvinyl chloride (PVC). Nitrile rubber. The selected gloves should have a breakthrough time of at least 8 hours. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation.

**Other skin and body protection** Wear apron or protective clothing in case of contact.

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<b>Hygiene measures</b>	Provide eyewash station and safety shower. Keep away from food, drink and animal feeding stuffs. 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. Do not eat, drink or smoke when using the product. Change work clothing daily before leaving workplace.
<b>Respiratory protection</b>	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 OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Color</b>	Amber.
<b>Odor</b>	Ammonia.
<b>pH</b>	pH (concentrated solution): alkaline @ 20 °C
<b>Initial boiling point and range</b>	100°C @
<b>Flash point</b>	>100°C
<b>Vapor pressure</b>	15mmHg @ °C
<b>Relative density</b>	1.03 @ 20 °C°C
<b>Solubility(ies)</b>	Miscible with water.
<b>Auto-ignition temperature</b>	>150°C
<b>Viscosity</b>	51-100 mPa s @ 20°C
<b>Other information</b>	Not available.

### 10. Stability and reactivity

<b>Reactivity</b>	Acids. Strong oxidizing agents.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
<b>Possibility of hazardous reactions</b>	Not available.
<b>Conditions to avoid</b>	Keep above the chemical's freezing point.
<b>Materials to avoid</b>	Avoid contact with the following materials: Acids. Oxidizing agents.
<b>Hazardous decomposition products</b>	Fire or high temperatures create: Nitrous gases (NOx). Oxides of the following substances: Carbon monoxide (CO). Carbon dioxide (CO2). Vapours/gases/fumes of: Ammonia or amines.

### 11. Toxicological information

#### Information on toxicological effects

##### Acute toxicity - oral

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**ATE oral (mg/kg)** 3,333.33

**Acute toxicity - dermal**

**ATE dermal (mg/kg)** 7,333.33

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

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

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

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

### 12. Ecological Information

**Ecotoxicity** Avoid release to the environment.

**Toxicity** Very toxic to aquatic organisms.

**Persistence and degradability**

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

**Bioaccumulative potential**

**Bio-Accumulative Potential** No data available on bioaccumulation.

**Mobility in soil**

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

**Other adverse effects**

**Other adverse effects** Not available.

### 13. Disposal considerations

**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

### 14. Transport information

**General** No other information known.

**UN Number**

**UN No. (TDG)** 1760

**UN No. (IMDG)** 1760

**UN No. (ICAO)** 1760

**UN No. (DOT)** 1760

**UN proper shipping name**

## IRABOND BC 50 HARDENER

**Proper shipping name (TDG)** CORROSIVE LIQUID, N.O.S. (POLYETHYLENEPOLYAMINES (NOS), PENTAETHYLENEHEXAMINE)

**Proper shipping name (IMDG)** CORROSIVE LIQUID, N.O.S. (POLYETHYLENEPOLYAMINES (NOS), PENTAETHYLENEHEXAMINE)

**Proper shipping name (ICAO)** CORROSIVE LIQUID, N.O.S. (POLYETHYLENEPOLYAMINES (NOS), PENTAETHYLENEHEXAMINE)

**Proper shipping name (DOT)** CORROSIVE LIQUID, N.O.S. (POLYETHYLENEPOLYAMINES (NOS), PENTAETHYLENEHEXAMINE)

### Transport hazard class(es)

**TDG class** 8

**TDG label(s)** 8

**IMDG Class** 8

**ICAO class/division** 8

### Transport labels



### Packing group

**TDG Packing Group** III

**IMDG packing group** III

**ICAO packing group** III

**DOT packing group** III

### Environmental hazards

**Environmentally Hazardous Substance**



### Special precautions for user

**EmS** F-A, S-B

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** No information required.

## 15. Regulatory information

## 16. Other information

**Revision date** 4/4/2018

**Revision** 5

**Supersedes date** 4/29/2016

**SDS No.** 20662

## IRABOND BC 50 HARDENER

### **Hazard statements in full**

H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
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.

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.