

## SAFETY DATA SHEET

### ACOTHANE ACTIVATOR

#### SECTION 1: Identification of the substance/mixture and of the Company/Undertaking

##### 1.1. Product identifier

Product name ACOTHANE ACTIVATOR  
Product number GC702

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

Identified uses Activator.

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

<b>Manufacturer</b>	SPENCER COATINGS LTD BLACKWELL ROAD HUTHWAITE NOTTINGHAMSHIRE NG17 2RL	<b>Supplier</b>	Acothane UK Ltd Unit 1 Clarkes Business Park Bilton Way Lutterworth Leicestershire, LE17 4HJ
<b>Contact person</b>	Tel: 01623 510585 Fax: 01623 556481 <a href="mailto:info@spencercoatings.co.uk">info@spencercoatings.co.uk</a>		Tel: 0800 246 1287 Email: <a href="mailto:info@acothaneuk.com">info@acothaneuk.com</a>

##### 1.4. Emergency telephone number

Emergency telephone 01623 528938 (Not 24 Hours)

#### 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 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H351 STOT SE 3 - H335 STOT RE 2 - H373

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xn;R20,R48/20. R42/43. Xi;R36/37/38.

##### 2.2. Label elements

###### Pictogram



Signal word



Danger

Revision date: 28.06.2016

Revision 7

Supersedes date 27.06.16

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Lutterworth  
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## ACOTHANE ACTIVATOR

<b>Hazard statements</b>	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H373 May cause damage to organs through prolonged or repeated exposure.
<b>Precautionary statements</b>	P260 Do not breathe vapour/ spray. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. 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. P308+P313 IF exposed or concerned: Get medical advice/ attention. P403+P233 Store in a well-ventilated place. Keep container tightly closed.
<b>Supplemental label information</b>	EUH204 Contains isocyanates. May produce an allergic reaction.
<b>Contains</b>	ISOCYANIC ACID, POLYMETHYLENEPOLYPHENYLENE ESTER, 4,4'-METHYLENEDIPHENYLDIISOCYANATE, DIPHENYLMETHANE-2,4'-DIISOCYANATE, 2,2'-METHYLENEDIPHENYL DIISOCYANATE

### 2.3. Other hazards

## SECTION3: Composition/Information on ingredients

### 3.2. Mixtures

<b>ISOCYANIC ACID,POLYMETHYLENEPOLYPHENYLENE ESTER</b>	<b>60-100%</b>
CAS number: 9016-87-9      EC number: 618-498-9	
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>
Acute Tox. 4 - H332	Xn;R20,R48/20. Xi;R36/37/38. R42/43.
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Resp. Sens. 1 - H334	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
STOT RE 2 - H373	
<b>4,4'-METHYLENEDIPHENYL DIISOCYANATE</b>	<b>10-30%</b>
CAS number: 101-68-8      EC number: 247-714-0	
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>
Acute Tox. 4 - H332	Xn;R20, R48/20. Xi;R36/37/38. R42/43.
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Resp. Sens. 1 - H334	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
STOT RE 2 - H373	

## ACOTHANE ACTIVATOR

<b>DIPHENYLMETHANE-2,4'-DIISOCYANATE</b>		<b>5-10%</b>
CAS number: 5873-54-1	EC number: 227-534-9	
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Acute Tox. 4 - H332	Xn; R20, R48/20. Xi; R36/37/38. R42/43	
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
Resp. Sens. 1 - H334		
Skin Sens. 1 - H317		
STOT SE 3 - H335		
STOT RE 2 - H373		

<b>2,2'-METHYLENEDIPHENYL DIISOCYANATE</b>		<b>1-5%</b>
CAS number: 2536-05-2	EC number: 219-799-4	
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Acute Tox. 4 - H332	Xn; R20, R48/20. Xi; R36/37/38. R42/43	
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
Resp. Sens. 1 - H334		
Skin Sens. 1 - H317		
STOT SE 3 - H335		
STOT RE 2 - H373		

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**

- Inhalation** Move affected person to fresh air at once. If breathing stops, provide artificial respiration. Get medical attention immediately. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.
- Ingestion** Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
- Skin contact** Wash skin thoroughly with soap and water or use an approved skin cleanser. An MDI study has demonstrated that a polyglycol-based skin cleanser (such as D-Tam TM, PEG-400) or corn oil may be more effective than soap and water. Get medical attention if irritation persists after washing. Wash clothing and clean shoes thoroughly before reuse.
- Eye contact** Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

**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** Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

- Inhalation** May cause sensitisation by inhalation. Symptoms following overexposure to vapour may include the following: Irritation of nose, throat and airway.
- Ingestion** May cause irritation.
- Skin contact** Irritating to skin. May cause sensitisation by skin contact.
- Eye contact** Irritating to eyes.

## ACOTHANE ACTIVATOR

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

Notes for the doctor Development of symptoms may be delayed for 24 to 48 hours.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

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

**Unsuitable extinguishing media** Do not use water, if avoidable.

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

**Specific hazards** When handled correctly, undamaged units represent no danger.

**Hazardous combustion products** Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO). Nitrous gases (NO<sub>x</sub>).

### **5.3. Advice for firefighters**

**Protective actions during Firefighting** In case of fire: Evacuate area. No action shall be taken without appropriate training or involving any personal risk.

**Special protective equipment for firefighters** Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

## **SECTION 6: Accidental Release Measures**

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

**Personal precautions** No action shall be taken without appropriate training or involving any personal risk. Evacuate area. Keep unnecessary and unprotected personnel away from the spillage. Do not touch or walk into spilled material. Avoid inhalation of vapours. Provide adequate ventilation. Use suitable respiratory protection if ventilation is inadequate. Wear protective clothing, gloves, eye and face protection.

### **6.2. Environmental precautions**

**Environmental precautions** Avoid the spillage or runoff entering drains, sewers or watercourses.

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

**Methods for cleaning up** Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

### **6.4. Reference to other sections**

**Reference to other sections** See Section 1 for emergency contact information. 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** Avoid spilling. Avoid contact with skin and eyes.

## ACOTHANE ACTIVATOR

**Advice on general occupational hygiene** When using do not eat, drink or smoke. Wash skin thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.

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

**Storage precautions** Keep only in the original container. Store in accordance with local regulations. Store in tightly- closed, original container in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10). Keep away from food and drink. Use appropriate containment to avoid environmental contamination.

**Storage class** Chemical storage.

### 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**

#### **ISOCYANIC ACID,POLYMETHYLENEPOLYPHENYLENE ESTER**

Short-term exposure limit (15-minute): 0.07 mg/m<sup>3</sup>

Long-term exposure limit (8-hour TWA): 0.02 mg/m<sup>3</sup>

#### **4,4'-METHYLENEDIPHENYL DIISOCYANATE**

Short-term exposure limit (15-minute): 0.07 mg/m<sup>3</sup>

Long-term exposure limit (8-hour TWA): 0.02 mg/m<sup>3</sup>

#### **DIPHENYLMETHANE-2,4'-DIISOCYANATE**

Long-term exposure limit (8-hour TWA): 0.02 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): 0.07 mg/m<sup>3</sup>

#### **2,2'-METHYLENEDIPHENYL DIISOCYANATE**

Long-term exposure limit (8-hour TWA): 0.02 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): 0.07 mg/m<sup>3</sup>

#### **ISOCYANIC ACID,POLYMETHYLENEPOLYPHENYLENE ESTER (CAS: 9016-87-9)**

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

#### **4,4'-METHYLENEDIPHENYL DIISOCYANATE (CAS: 101-68-8)**

**Ingredient comments** WEL = Workplace Exposure Limits

#### **DNEL**

General population - Dermal; Short term systemic effects: 25 mg/m<sup>3</sup>

General population - Oral; Short term systemic effects: 20 mg/kg/day

General population - Dermal; Short term local effects: 17.2 mg/cm<sup>2</sup>

General population - Inhalation; Short term local effects: 0.05 mg/m<sup>3</sup>

General population - Inhalation; Short term systemic effects: 0.05 mg/m<sup>3</sup>

General population - Inhalation; Long term local effects: 0.025 mg/m<sup>3</sup>

General population - Inhalation; Long term systemic effects: 0.025 mg/m<sup>3</sup>

Workers - Dermal; Short term systemic effects: 50 mg/kg/day

Workers - Inhalation; Short term systemic effects: 0.1 mg/m<sup>3</sup>

Workers - Dermal; Short term local effects: 28.7 mg/cm<sup>2</sup>

Workers - Inhalation; Short term local effects: 0.1 mg/m<sup>3</sup>

Workers - Inhalation; Long term systemic effects: 0.05 mg/m<sup>3</sup>

Workers - Inhalation; Long term local effects: 0.05 mg/m<sup>3</sup>

#### **PNEC**

- Fresh water; >1 mg/l

- STP; >1 mg/l

- Soil; >1 mg/kg

## ACOTHANE ACTIVATOR

- Marine water; >0.1 mg/l
- Sediment; Not relevant

## DIPHENYLMETHANE-2,4'-DIISOCYANATE (CAS: 5873-54-1)

**Ingredient comments** WEL = Workplace Exposure Limits

**DNEL**  
General population - Dermal; Short term systemic effects: 25 mg/kg/day  
General population - Inhalation; Short term systemic effects: 0.05 mg/m<sup>3</sup>  
General population - Oral; Short term systemic effects: 20 mg/kg/day  
General population - Dermal; Short term local effects: 17.2 mg/cm<sup>2</sup>  
General population - Inhalation; Short term local effects: 0.05 mg/m<sup>3</sup>  
General population - Inhalation; Long term systemic effects: 0.025 mg/m<sup>3</sup>  
General population - Inhalation; Long term local effects: 0.025 mg/m<sup>3</sup>  
Workers - Inhalation; Short term systemic effects: 0.1 mg/m<sup>3</sup>  
Workers - Dermal; Short term local effects: 28.7 mg/cm<sup>2</sup>  
Workers - Inhalation; Short term local effects: 0.1 mg/m<sup>3</sup>  
Workers - Inhalation; Long term systemic effects: 0.05 mg/m<sup>3</sup>

**PNEC**  
- Fresh water; >1 mg/l  
- Marine water; >0.1 mg/l  
- Soil; >1 mg/kg  
- STP; >1 mg/l

## 2,2'-METHYLENEDIPHENYL DIISOCYANATE (CAS: 2536-05-2)

**Ingredient comments** WEL = Workplace Exposure Limits

**DNEL**  
General population - Dermal; Short term systemic effects: 25 mg/kg/day  
General population - Inhalation; Short term systemic effects: 0.05 mg/m<sup>3</sup>  
General population - Oral; Short term systemic effects: 20 mg/kg/day  
General population - Dermal; Short term local effects: 17.2 mg/cm<sup>2</sup>  
General population - Inhalation; Short term local effects: 0.05 mg/m<sup>3</sup>  
General population - Inhalation; Long term systemic effects: 0.025 mg/m<sup>3</sup>  
General population - Inhalation; Long term local effects: 0.025 mg/m<sup>3</sup>  
Workers - Dermal; Short term systemic effects: 50 mg/kg/day  
Workers - Inhalation; Short term systemic effects: 0.1 mg/m<sup>3</sup>  
Workers - Dermal; Short term local effects: 28.7 mg/cm<sup>2</sup>  
Workers - Inhalation; Short term local effects: 0.1 mg/m<sup>3</sup>  
Workers - Inhalation; Long term systemic effects: 0.05 mg/m<sup>3</sup>  
Workers - Inhalation; Long term local effects: 0.05 mg/m<sup>3</sup>

**PNEC**  
- Fresh water; >1 mg/l  
- Marine water; >0.1 mg/l  
- Soil; 1 mg/kg  
- STP; >1 mg/l

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering Controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

## ACOTHANE ACTIVATOR

<b>Eye/face protection</b>	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.
<b>Hand protection</b>	To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 4 hours.
<b>Other skin and body protection</b>	Wear appropriate clothing to prevent any possibility of skin contact.
<b>Hygiene measures</b>	Do not smoke in work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
<b>Respiratory protection</b>	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator.
<b>Environmental exposure Controls</b>	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### SECTION 9: Physical and Chemical Properties

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

<b>Appearance</b>	Liquid.
<b>Colour</b>	Brown.
<b>Odour</b>	Almost odourless.
<b>Odour threshold</b>	Not determined.
<b>pH</b>	Not applicable.
<b>Melting point</b>	-30°C
<b>Initial boiling point and range</b>	>300°C @ 1013 hPa Flash point approx 229°C Flammability (solid, gas) Not applicable.
<b>Vapour pressure</b>	approx 11 hPa @ 20°C
<b>Vapour density</b>	Not determined.
<b>Relative density</b>	1.23
<b>Solubility(ies)</b>	Immiscible with water.
<b>Partition coefficient</b>	log Pow: 4.51
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	approx 145 mPa s @ 20°C

#### 9.2. Other information

**Volatile organic compound** This product contains a maximum VOC content of Zero g/l.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

**Reactivity** No test data specifically related to reactivity available for this product or its ingredients.

#### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures. Polymerises at approx 200C with evolution of CO2

## ACOTHANE ACTIVATOR

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous Reactions** Reactions with the following materials may generate heat: Amines. Alcohols. Reaction with water forms CO<sub>2</sub> which can cause pressure build up in closed containers.

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid excessive heat for prolonged periods of time.

### 10.5. Incompatible materials

**Materials to avoid** Water, steam, water mixtures. Alcohols. Amines. Alkalis. Acids.

### 10.6. Hazardous decomposition products

**Hazardous decomposition Products** Fire creates: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrous gases (NO<sub>x</sub>). Hydrocarbons.

## **SECTION 11: Toxicological Information**

### 11.1. Information on toxicological effects

**Toxicological effects** The toxicity of this substance has been assessed during REACH registration.

#### **Acute toxicity - inhalation**

**ATE inhalation (gases ppm)** 5,000.0 ATE inhalation (vapours mg/l) 11.0

**ATE inhalation (dusts/mists mg/l)** 1.67

#### **Serious eye damage/irritation**

**Serious eye damage/irritation** Irritation of eyes is assumed.

#### **Respiratory sensitisation**

**Respiratory sensitisation** Sensitising.

#### **Skin sensitisation**

**Skin sensitisation** Sensitising.

**Inhalation** Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.

**Ingestion** May cause discomfort if swallowed.

**Skin contact** Liquid may irritate skin.

**Eye contact** Vapour or spray in the eyes may cause irritation and smarting.

## **SECTION 12: Ecological Information**

### 12.1. Toxicity

**Toxicity** The product is not believed to present a hazard due to its physical nature.

### 12.2. Persistence and degradability

**Persistence and degradability** The product is not readily biodegradable.



### **12.3. Bioaccumulative potential**

**Bioaccumulative potential** Accumulates in soil and sediment.  
**Partition coefficient** log Pow: 4.51

### **12.4. Mobility in soil**

**Mobility** The product contains substances which are insoluble in water and which sediment in water systems.  
**Adsorption/desorption coefficient** Not available.

### **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** None known.

## **SECTION 13: Disposal Considerations**

### **13.1. Waste treatment methods**

**General information** The generation of waste should be minimised or avoided wherever possible. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.  
**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**

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### **14.1. UN number**

Not applicable.

### **14.2. UN proper shipping name**

Not applicable.

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

No transport warning sign required.

### **14.4. Packing group**

Not applicable.

### **14.5. Environmental hazards**

**Environmentally hazardous substance/marine pollutant**

No.

### **14.6. Special precautions for user**

Not applicable.

### **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.

## ACOTHANE ACTIVATOR

### SECTION 15: Regulatory information

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

<b>National regulations</b>	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
<b>Guidance</b>	Workplace Exposure Limits EH40. CHIP for everyone HSG228. Approved Classification and Labelling Guide (Sixth edition) L131. Safety Data Sheets for Substances and Preparations.

#### 15.2. Chemical safety assessment

### SECTION 16: Other Information

<b>Revision date</b>	28/06/2016
<b>Revision</b>	7
<b>Supersedes date</b>	27/06/2016
<b>Risk phrases in full</b>	R20 Harmful by inhalation. R36/37/38 Irritating to eyes, respiratory system and skin. R42/43 May cause sensitisation by inhalation and skin contact. R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
<b>Hazard statements in full</b>	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H373 May cause damage to organs through prolonged or repeated exposure.

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.