SAFETY DATA SHEET
507 DWPU ACTIVATOR

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

1.1. Product identifier

Product name DWPU ACTIVATOR

Product number 507

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

Identified uses PC 9a: Coatings and paints, thinners, paint removers. Isocyanate hardener component for 2K Polyurethane paint.

1.3. Details of the supplier of the safety data sheet

Supplier Resimac Ltd, Unit B, Park Barn Estate,
Station Road, Topcliffe, Thirsk, North
Yorkshire, United Kingdom YO7 3SE
Tel: +44 (0)1845 577498

Contact person info@resimac.co.uk

1.4. Emergency telephone number

Emergency telephone United Kingdom: 01845 577498 (Mon-Fri 0800 - 1800 hrs)

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 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms

Signal word Danger

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Hazard statements

H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260 Do not breathe vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284 [In case of inadequate ventilation] wear respiratory 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.
P312 Call a POISON CENTRE/doctor if you feel unwell.

Supplemental label information

EUH204 Contains isocyanates. May produce an allergic reaction.

Contains

ISOCYANIC ACID,POLYMETHYLENEPOLYPHENYLENE ESTER

Other information

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ISOCYANIC ACID,POLYMETHYLENEPOLYPHENYLENE ESTER **60-100%**

CAS number: 9016-87-9 EC number: 618-498-9

Classification

Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Resp. Sens. 1 - H334
Skin Sens. 1 - H317
Carc. 2 - H351
STOT SE 3 - H335
STOT RE 2 - H373

Classification (67/548/EEC or 1999/45/EC)

Xn;R20,R48/20. Carc. Cat. 3;R40. Xi;R36/37/38. R42/43.

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4,4'-METHYLENEDIPHENYL DIISOCYANATE **10-30%**

CAS number: 101-68-8 EC number: 202-966-0 REACH registration number: 01-2119457014-47-XXXX

Classification

Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Resp. Sens. 1 - H334
Skin Sens. 1 - H317
Carc. 2 - H351
STOT SE 3 - H335
STOT RE 2 - H373

Classification (67/548/EEC or 1999/45/EC)

Xn;R20,R48/20. Carc. Cat. 3;R40. Xi;R36/37/38. R42/43.

DIPHENYLMETHANE-2,4'-DIISOCYANATE **5-10%**

CAS number: 5873-54-1 EC number: 227-534-9 REACH registration number: 01-2119480143-45-XXXX

Classification

Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Resp. Sens. 1 - H334
Skin Sens. 1 - H317
Carc. 2 - H351
STOT SE 3 - H335
STOT RE 2 - H373

Classification (67/548/EEC or 1999/45/EC)

Xn; R20, R48/20. Xi; R36/37/38. Carc. Cat. 3 R40. R42/43

2,2'-METHYLENEDIPHENYL DIISOCYANATE **1-5%**

CAS number: 2536-05-2 EC number: 219-799-4 REACH registration number: 01-2119927323-43-XXXX

Classification

Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Resp. Sens. 1 - H334
Skin Sens. 1 - H317
Carc. 2 - H351
STOT SE 3 - H335
STOT RE 2 - H373

Classification (67/548/EEC or 1999/45/EC)

Xn; R20, R48/20. Xi; R36/37/38. Carc. Cat. 3 R40. R42/43

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.

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Ingestion Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention.

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. Rinse immediately with plenty of water. 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.

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 Toxic and corrosive gases or vapours. Oxides of carbon. Oxides of nitrogen. Hydrogen cyanide (HCN).

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. Move containers from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out.

Special protective equipment for firefighters During fire-fighting respirator with independent air-supply and airtight garment is required. 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. 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.

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For non-emergency personnel Keep unnecessary and unprotected personnel away from the area.

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.

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 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/m³
Long-term exposure limit (8-hour TWA): 0.02 mg/m³

4,4'-METHYLENEDIPHENYL DIISOCYANATE

Short-term exposure limit (15-minute): 0.07 mg/m³
Long-term exposure limit (8-hour TWA): 0.02 mg/m³
Occupational Exposure Limits (Ireland):
Long-term exposure limit (8-hour TWA): NAOSH (Ireland) OELV 8 hours; 0.005 ppm

DIPHENYLMETHANE-2,4'-DIISOCYANATE

Long-term exposure limit (8-hour TWA): 0.02 mg/m³
Short-term exposure limit (15-minute): 0.07 mg/m³

2,2'-METHYLENEDIPHENYL DIISOCYANATE

Long-term exposure limit (8-hour TWA): 0.02 mg/m³
Short-term exposure limit (15-minute): 0.07 mg/m³

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

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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/m³
General population - Oral; Short term systemic effects: 20 mg/kg/day
General population - Dermal; Short term local effects: 17.2 mg/cm²
General population - Inhalation; Short term local effects: 0.05 mg/m³
General population - Inhalation; Short term systemic effects: 0.05 mg/m³
General population - Inhalation; Long term local effects: 0.025 mg/m³
General population - Inhalation; Long term systemic effects: 0.025 mg/m³
Workers - Dermal; Short term systemic effects: 50 mg/kg/day
Workers - Inhalation; Short term systemic effects: 0.1 mg/m³
Workers - Dermal; Short term local effects: 28.7 mg/cm²
Workers - Inhalation; Short term local effects: 0.1 mg/m³
Workers - Inhalation; Long term systemic effects: 0.05 mg/m³
Workers - Inhalation; Long term local effects: 0.05 mg/m³

PNEC

- Fresh water; >1 mg/l
- STP; >1 mg/l
- Soil; >1 mg/kg
- 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/m³
General population - Oral; Short term systemic effects: 20 mg/kg/day
General population - Dermal; Short term local effects: 17.2 mg/cm²
General population - Inhalation; Short term local effects: 0.05 mg/m³
General population - Inhalation; Long term systemic effects: 0.025 mg/m³
General population - Inhalation; Long term local effects: 0.025 mg/m³
Workers - Inhalation; Short term systemic effects: 0.1 mg/m³
Workers - Dermal; Short term local effects: 28.7 mg/cm²
Workers - Inhalation; Short term local effects: 0.1 mg/m³
Workers - Inhalation; Long term systemic effects: 0.05 mg/m³

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

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DNEL	General population - Dermal; Short term systemic effects: 25 mg/kg/day General population - Inhalation; Short term systemic effects: 0.05 mg/m³ General population - Oral; Short term systemic effects: 20 mg/kg/day General population - Dermal; Short term local effects: 17.2 mg/cm² General population - Inhalation; Short term local effects: 0.05 mg/m³ General population - Inhalation; Long term systemic effects: 0.025 mg/m³ General population - Inhalation; Long term local effects: 0.025 mg/m³ Workers - Dermal; Short term systemic effects: 50 mg/kg/day Workers - Inhalation; Short term systemic effects: 0.1 mg/m³ Workers - Dermal; Short term local effects: 28.7 mg/cm² Workers - Inhalation; Short term local effects: 0.1 mg/m³ Workers - Inhalation; Long term systemic effects: 0.05 mg/m³ Workers - Inhalation; Long term local effects: 0.05 mg/m³
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.
Eye/face protection	The following protection should be worn: Chemical splash goggles or face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	Wear protective gloves. To protect hands from chemicals, gloves should comply with European Standard EN374. For exposure up to 8 hours, wear gloves made of the following material: Chloroprene rubber. Thickness: ≥ 0.5 mm Nitrile rubber; thickness 0.35mm minimum. Butyl Rubber; thickness 0.5mm minimum. Fluorinated rubber (Viton); thickness 0.4mm minimum. Glove thickness is not necessarily a good measure of glove resistance as the permeation rate will depend on the exact glove composition. The breakthrough time for any glove material may be different for different glove manufacturers. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Do not smoke in work area. Wash 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.
Respiratory protection	Air-fed protective respiratory equipment must be worn by the spray operator, even when good ventilation is provided. For non-spraying application, in well ventilated areas, air-fed respirators can be replaced by a respirator with the following cartridge: Gas filter, type A2. Particulate filter, type P2. Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used.

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Environmental exposure controls	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

Appearance	Liquid.
Colour	Brown.
Odour	Almost odourless.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	-30°C
Initial boiling point and range	>300°C @ 1013 hPa
Flash point	approx 229°C
Flammability (solid, gas)	Not applicable.
Vapour pressure	approx 11 hPa @ 20°C
Vapour density	Not determined.
Relative density	1.22
Solubility(ies)	Immiscible with water.
Partition coefficient	log Pow: 4.51
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not determined.
Viscosity	approx 145 mPa s @ 20°C

9.2. Other information

Volatile organic compound	Not applicable.

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

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Reactions with the following materials may generate heat: Amines. Alcohols. Reaction with water forms CO2 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.

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10.6. Hazardous decomposition products

Hazardous decomposition products Fire creates: Carbon monoxide (CO). Carbon dioxide (CO_2). Nitrous gases (NO_x). 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.

Carcinogenicity

Carcinogenicity May cause cancer.

Target organ for carcinogenicity Lungs

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.

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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.

SECTION 15: Regulatory information

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

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EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). 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).
Guidance	Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (Sixth edition) L131. Isocyanates: Health hazards and precautionary measures EH16. Safety Data Sheets for Substances and Preparations.
Authorisations (Annex XIV Regulation 1907/2006)	This product is/contains a substance that is included in REGULATION (EC) No 1907/2006 (REACH) ANNEX XVII - RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	WEL: Workplace Exposure Limit. ATE: Acute Toxicity Estimate. CAS: Chemical Abstracts Service. DMEL: Derived Minimal Effect Level. DNEL: Derived No Effect Level. OELV: Occupational Exposure Limit Value. PNEC: Predicted No Effect Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.
Revision date	11/05/2018
Revision	8
Supersedes date	28/06/2016
SDS number	16862
Risk phrases in full	R20 Harmful by inhalation. R36/37/38 Irritating to eyes, respiratory system and skin. R40 Limited evidence of a carcinogenic effect. R42/43 May cause sensitisation by inhalation and skin contact. R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Hazard statements in full	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. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.

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The information in this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.