

## NATIONAL INDUSTRIAL CHEMICALS NOTIFICATION AND ASSESSMENT SCHEME (NICNAS)

### POLYMER OF LOW CONCERN PUBLIC REPORT

#### Polyester in SHERFLEX 100

This Assessment has been compiled in accordance with the provisions of the *Industrial Chemicals (Notification and Assessment) Act 1989* (the Act) and Regulations. The National Industrial Chemicals Notification and Assessment Scheme (NICNAS) is administered by the Australian Government Department of Health, and conducts the risk assessment for public health and occupational health and safety. The assessment of environmental risk is conducted by the Australian Government Department of the Environment and Energy.

This Public Report is available for viewing and downloading from the NICNAS website or available on request, free of charge, by contacting NICNAS. For requests and enquiries please contact the NICNAS Administration Coordinator at:

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**Director  
NICNAS**

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## SUMMARY

The following details will be published in the NICNAS *Chemical Gazette*:

ASSESSMENT REFERENCE	APPLICANT(S)	CHEMICAL OR TRADE NAME	HAZARDOUS SUBSTANCE	INTRODUCTION VOLUME	USE
PLC/1392	Sherwin-Williams Diversified Brands (Australia) Pty Ltd  The Sherwin-Williams (Australia) Pty Ltd	Polyester in SHERFLEX 100	No	25 tonnes per annum	A component of industrial coatings

## CONCLUSIONS AND REGULATORY OBLIGATIONS

### Human Health Risk Assessment

Based on the assumed low hazard and the assessed use pattern, the notified polymer is not considered to pose an unreasonable risk to the health of workers and the public.

### Environmental Risk Assessment

Based on the assumed low hazard and the assessed use pattern, the notified polymer is not considered to pose an unreasonable risk to the environment.

### Health and Safety Recommendations

- No specific engineering controls, work practices or personal protective equipment are required for the safe use of the notified polymer itself. However, these should be selected on the basis of all ingredients in the formulation.

Guidance in selection of personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.

- A copy of the (M)SDS should be easily accessible to employees.
- Spray applications should be carried out in accordance with the Safe Work Australia Code of Practice for *Spray Painting and Powder Coating* (Safe Work Australia, 2015) or relevant State or Territory Code of Practice.
- If products and mixtures containing the notified polymer are classified as hazardous to health in accordance with the *Globally Harmonised System of Classification and Labelling of Chemicals (GHS)*, as adopted for industrial chemicals in Australia, workplace practices and control procedures consistent with provisions of State and Territory hazardous substances legislation should be in operation.

### Environmental Recommendations

#### Disposal

- Where reuse or recycling are not appropriate, dispose of the notified polymer in an environmentally sound manner in accordance with relevant Commonwealth, state, territory and local government legislation.

**Emergency Procedures**

- Spills and/or accidental release of the notified polymer should be handled by physical containment, collection and subsequent safe disposal.

**Secondary Notification**

This risk assessment is based on the information available at the time of notification. The Director may call for the reassessment of the polymer under secondary notification provisions based on changes in certain circumstances. Under Section 64 of the *Industrial Chemicals (Notification and Assessment) Act (1989)* the notifier, as well as any other importer or manufacturer of the notified polymer, have post-assessment regulatory obligations to notify NICNAS when any of these circumstances change. These obligations apply even when the notified polymer is listed on the Australian Inventory of Chemical Substances (AICS).

Therefore, the Director of NICNAS must be notified in writing within 28 days by the notifier, other importer or manufacturer:

- (1) Under Section 64(1) of the Act; if
  - the notified polymer is introduced in a chemical form that does not meet the PLC criteria.or
- (2) Under Section 64(2) of the Act; if
  - the function or use of the notified polymer has changed from a component of industrial coatings or is likely to change significantly;
  - the amount of notified polymer being introduced has increased, or is likely to increase, significantly;
  - the notified polymer has begun to be manufactured in Australia;
  - additional information has become available to the person as to an adverse effect of the notified polymer on occupational health and safety, public health, or the environment.

The Director will then decide whether a reassessment (i.e. a secondary notification and assessment) is required.

**(Material) Safety Data Sheet**

The (M)SDS of the product containing the notified polymer was provided by the applicant. The accuracy of the information on the (M)SDS remains the responsibility of the applicant.

## ASSESSMENT DETAILS

### 1. APPLICANT AND NOTIFICATION DETAILS

#### Applicants

Sherwin-Williams (Australia) Pty Ltd (ABN: 17 162 771 351)  
 Factory 3, 28 Commercial Drive  
 DANDENONG VIC 3175

Sherwin Williams Diversified Brands (Australia) Pty Ltd (ABN: 31 604 851 658)  
 Level 10, 1 City View Road  
 PENNANT HILLS NSW 2120

#### Exempt Information (Section 75 of the Act)

Data items and details claimed exempt from publication: chemical name, CAS number, molecular and structural formulae, molecular weight, polymer constituents, and residual monomers/impurities.

### 2. IDENTITY OF POLYMER

#### Marketing Name(s)

Polyester in SHERFLEX 100

### 3. PLC CRITERIA JUSTIFICATION

<i>Criterion</i>	<i>Criterion met</i>
Molecular Weight Requirements	Yes
Functional Group Equivalent Weight (FGEW) Requirements	Yes
Low Charge Density	Yes
Approved Elements Only	Yes
Stable Under Normal Conditions of Use	Yes
Not Water Absorbing	Yes
Not a Hazard Substance or Dangerous Good	Yes

The notified polymer meets the PLC criteria.

### 4. PHYSICAL AND CHEMICAL PROPERTIES

Appearance at 20 °C and 101.3 kPa	Liquid dispersion*
Melting Point/Glass Transition Temp	Not available
Density	1060 kg/m <sup>3</sup> *
Water Solubility	Not determined. Expected to be low based on the predominantly hydrophobic structure and the high molecular weight of the notified polymer
Reactivity	Stable under normal environmental conditions
Degradation Products	None under normal conditions of use
* Product containing the notified polymer	

### 5. INTRODUCTION AND USE INFORMATION

#### Maximum Introduction Volume of Notified Chemical (100%) Over Next 5 Years

<i>Year</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Tonnes	5	10	15	20	25

**Use**

The notified polymer will be imported used as an additive in paints and coatings at 15 – 65 % for the aerospace industry. It will be applied to surfaces via spray.

No reformulation will occur in Australia.

**6. HUMAN HEALTH RISK ASSESSMENT**

No toxicological data were submitted. The notified polymer meets the PLC criteria and is therefore assumed to be of low hazard. The risk of the notified polymer to occupational and public health is not considered to be unreasonable given the assumed low hazard and the assessed use pattern.

**7. ENVIRONMENTAL RISK ASSESSMENT**

No ecotoxicological data were submitted. Polymers without significant ionic functionality are generally of low concern to the environment.

The notified polymer will not be manufactured or reformulated in Australia. Therefore, no release of the notified polymer to the environment is expected from these activities. The notified polymer is expected to be used in aerospace paints and coatings. Do-It-Yourself (DIY) use is not expected. Therefore, the notified polymer is not expected to have significant release to the aquatic environment. The notified polymer may be released to the environment as accidental spills and container residues. These releases are expected to be collected and disposed of to landfill.

Based on its use in aerospace paints and coatings, it is expected that the majority of the notified polymers will be cured during use. The notified polymers cured on substrates will share the fate of the coated articles. These are expected to be disposed of to landfill, or undergo thermal decomposition during metal recycling processes. Therefore, the notified polymer is not expected to be bioavailable. Based on the high molecular weight and expected low water solubility, the notified polymer is not expected to cross biological membranes. Therefore, the notified polymer is unlikely to bioaccumulate. In landfill and during recycling processes, the notified polymer is expected to eventually degrade via biotic and abiotic processes to form water and oxides of carbon.

Therefore, based on their assumed low hazard and assessed use pattern, the notified polymer is not considered to pose an unreasonable risk to the environment.

**BIBLIOGRAPHY**

Safe Work Australia (2015) Code of Practice: Spray Painting and Powder Coating, Safe Work Australia, <http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/spray-painting-and-powder-coating>.