

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

**POLYMER OF LOW CONCERN PUBLIC REPORT**

**Polymer 1 in Synocure 238 BA 65**

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.

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**

March 2016

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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/1237	PPG Industries Australia Pty Ltd	Polymer 1 in Synocure 238 BA 65	No	< 0.5 tonne per annum	Component of paints

## **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.

- If aerosols are formed during the use of the notified polymer, engineering controls and respiratory protection should be used to prevent inhalation exposure.
- 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.

### **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 component of paints, 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

#### Applicant

PPG Industries Australia Pty Ltd (ABN: 82 055 500 939)  
14–20 McNaughton Rd  
CLAYTON VIC 3168

#### 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, spectral data, purity, use details, polymer constituents, residual monomers/impurities and import volume

### 2. IDENTITY OF POLYMER

#### Marketing Name

Synocure 238 BA 65 (product containing the notified polymer)

#### Molecular Weight

Number Average Molecular Weight (Mn) is > 1,000 Da

### 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	Solid
Melting Point/Glass Transition Temp	Not determined. The notified polymer will be sold and used in liquid formulations.
Density	1,066 kg/m <sup>3</sup> at 21 °C
Water Solubility	1.78–10.11 × 10 <sup>-6</sup> g/L at 23 °C
Dissociation Constant	Contains no dissociable functionalities
Particle Size	Not determined. The notified polymer will be sold and used in liquid formulations.
Reactivity	Stable under normal environmental conditions
Degradation Products	None under normal conditions of use

### 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	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

## Use

The notified polymer will not be manufactured or reformulated in Australia. The notified polymer will be imported as a component of finished paints in 5 L cans, which may then be repackaged into smaller can sizes. Finished paints containing the notified polymer will be used in industrial applications (either in primers or topcoats) and will be applied onto metal substrates primarily by spray applicator within a spray booth and possibly by brush and roller.

## 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 be imported into Australia as finished coating formulations. The finished coating formulation containing the notified polymer will only be used in industrial settings and will predominantly be applied to metal substrates (either in primers or topcoats) using spray guns in spray booths. A small amount of the coatings containing the notified polymer will also be applied by brush and roller techniques. The main release during use is expected to be from overspray. The spray booths are designed specifically to remove and capture any aerosols and vapours arising from overspray. Given the engineering controls in place, direct environmental release of the notified polymer from use is not expected. The wastes from overspray are anticipated to be captured by spray booth filters and drop sheets, and all solid wastes are expected to be disposed of in accordance with local government regulations, most likely to landfill.

It is estimated by the notifier that approximately 0.1% of the import volume of the notified polymer, or 0.5 kg, may be released from equipment washing. Residues of the notified polymer that remain in the product containers and from equipment washing are expected to be allowed to cure, collected and disposed of to landfill. Discarded end-use articles containing the notified polymer in the cured coating film is expected to be disposed of to landfill, or recycled for metal reclamation which will entail thermal decomposition of the coating to form oxides of carbon and water. In landfill, the notified polymer will be present as a cured solid film and will be neither bioavailable nor mobile.

Therefore, based on its assumed low hazard, 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>.