File No PLC/800

November 2008

NATIONAL INDUSTRIAL CHEMICALS NOTIFICATION AND ASSESSMENT SCHEME (NICNAS)

FULL PUBLIC REPORT

Polymer in Uralac CP 4197 SN ND

This Assessment has been compiled in accordance with the provisions of the *Industrial Chemicals (Notification and Assessment) Act 1989* (Cwlth) (the Act) and Regulations. This legislation is an Act of the Commonwealth of Australia. The National Industrial Chemicals Notification and Assessment Scheme (NICNAS) is administered by the Department of Health and Ageing, and conducts the risk assessment for public health and occupational health and safety. The assessment of environmental risk is conducted by the Department of the Environment, Water, Heritage and the Arts.

For the purposes of subsection 78(1) of the Act, this Full Public Report may be inspected at our NICNAS office by appointment only at 334-336 Illawarra Road, Marrickville NSW 2204.

This Full Public Report is also 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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1. APPLICANT AND NOTIFICATION DETAILS

APPLICANT(S)
PPG Industries Australia Pty Ltd (ABN: 82 055 500 939)
McNaughton Road
Clayton VIC 3168

NOTIFICATION CATEGORY
Polymer of Low Concern

EXEMPT INFORMATION (SECTION 75 OF THE ACT)
Data items and details claimed exempt from publication:
Chemical Name, Other Names, CAS Number, Molecular and Structural Formulae, Molecular Weight, Polymer Constituents, Residual Monomers/Impurities, Import Volume, Use Details.

VARIATION OF DATA REQUIREMENTS (SECTION 24 OF THE ACT)
No variation to the schedule of data requirements is claimed.

PREVIOUS NOTIFICATION IN AUSTRALIA BY APPLICANT(S)
CEC/720

NOTIFICATION IN OTHER COUNTRIES
No

2. IDENTITY OF CHEMICAL

MARKETING NAME(S)
Polymer in Uralac CP 4197 SN ND (overseas marketing name)
Polymer in PPG4613-608A (containing < 40% notified polymer)

REACTIVE FUNCTIONAL GROUPS
The notified polymer contains only low concern functional groups.

3. PLC CRITERIA JUSTIFICATION

Criterion	*Criterion met*
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

4. PHYSICAL AND CHEMICAL PROPERTIES

Appearance at 20°C and 101.3 kPa:	Solid.
Glass Transition Temp	43°C (test report not available).
Density	1252 kg/m^3 at 20°C (based on an analogue).

Water Solubility	1.4 mg/L at 20°C pH 6.7 (Based on an analogue, test report not available). Low water solubility is expected based on the mainly hydrophobic structure.
Dissociation Constant	No dissociable groups.
Reactivity	Stable under normal conditions of use and storage. Hazardous polymerisation is not expected to occur.
Degradation Products	None expected under normal conditions of use. The notified polymer contains hydrolysable functions. However, due to the low water solubility, hydrolysis is unlikely to occur in the environmental pH range of 4–9.

5. INTRODUCTION AND USE INFORMATION

MAXIMUM INTRODUCTION VOLUME OF NOTIFIED CHEMICAL (100%) OVER NEXT 5 YEARS

Year	*1*	*2*	*3*	*4*	*5*
Tonnes	3-10	3-10	3-10	3-10	3-10

Use
The notified polymer will be used as a component of coatings for rigid metal aerosol cans. The metal cans may be used in industrial settings or by members of the public.

The imported product containing the notified polymer will be transferred under exhaust ventilation to a reservoir via a mechanical decanting pump. The reservoir will feed onto transfer rollers, which will then apply the coating formulation to the exterior of the article (can or tube) as it is fed through the coating machine, which is enclosed. During the application process, any residual coating formulation remaining on the application roller will be removed by a scraper and returned into the reservoir via a drip tray for reuse. After application the article will be fed into a multi–zone oven, where heat will dry and cure the coating.

Mode of Introduction and Disposal
The coating formulation containing the notified polymer (at concentrations of < 40% w/w) will be imported in 30 kg steel pails. From the Melbourne port, the pails will be transported by road to the PPG Warehouse in Clayton, Victoria.

6. HUMAN HEALTH IMPLICATIONS

Hazard Characterisation
No toxicological data were submitted. The notified polymer meets the PLC criteria and can therefore be considered to be of low hazard.

Occupational Health and Safety Risk Assessment
Dermal, ocular and/or inhalation exposure from the product containing the notified polymer may potentially occur during the roller coating of cans, connection and disconnection of hoses, and during the cleaning and maintenance of the equipment. However, exposure to significant amounts of the notified polymer is limited because of the fully automated processes, use of effective fume extraction systems, and personal protective equipment (PPE) worn by workers.

Overall, the OHS risk presented by the notified polymer is expected to be low, based on the minimal exposure to workers and the low intrinsic hazard of the polymer.

Public Health Risk Assessment
The notified polymer will not be sold to the public except in the form of finished articles. There is potential for public exposure to cans that have been coated with the notified polymer (cured and cross linked into an inert rigid coating). Therefore, the risk to public health will be negligible because the notified polymer is of low hazard, and is cured onto the product.

7. ENVIRONMENTAL IMPLICATIONS

Hazard Characterisation
No ecotoxicological data were submitted. PLCs without significant ionic functionality are of low concern to the aquatic environment.

Environmental Risk Assessment
No significant release of the notified polymer to the aquatic environment is expected given the reported use pattern and low water solubility. Therefore, the notified polymer is not considered to pose an unacceptable risk to the aquatic ecosystem.

8. CONCLUSIONS AND RECOMMENDATIONS

Human health risk assessment
Under the conditions of the occupational settings described, the notified polymer is not considered to pose an unacceptable risk to the health of workers.

When used in the proposed manner, the notified polymer is not considered to pose an unacceptable risk to public health.

Environmental risk assessment
Based on the reported use pattern, the notified polymer is not considered to pose a risk to the environment.

Recommendations

CONTROL MEASURES
Occupational Health and Safety

- 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 MSDS should be easily accessible to employees.

- If products and mixtures containing the notified polymer are classified as hazardous to health in accordance with the *Approved Criteria for Classifying Hazardous Substances* [NOHSC:1008(2004)], workplace practices and control procedures consistent with provisions of State and Territory hazardous substances legislation must be in operation.

Disposal

- The notified polymer should be disposed of by incineration or to landfill

Emergency procedures

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

Regulatory Obligations

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 being a component of coatings for rigid metal aerosol cans, or is likely to change significantly;
- the amount of notified polymer being introduced has increased from 10 tonnes per annum, or is likely to increase, significantly;
- if 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 chemical 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 MSDS of products containing the notified polymer provided by the notifier was reviewed by NICNAS. The accuracy of the information on the MSDS remains the responsibility of the applicant.