

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

POLYMER OF LOW CONCERN FULL PUBLIC REPORT

Polymer in EPS 5724

This Assessment has been compiled in accordance with the provisions of the *Industrial Chemicals (Notification and Assessment) Act 1989* (Cwlth) (the Act) and Regulations. The National Industrial Chemicals Notification and Assessment Scheme (NICNAS) is administered by the Australian Government 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 Australian Government Department of Sustainability, Environment, Water, Population and Communities.

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 Level 7, 260 Elizabeth Street, Surry Hills NSW 2010.

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**

April 2011

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1. APPLICANT AND NOTIFICATION DETAILS

Applicant

The Valspar (Australia) Corporation Pty Ltd (ABN: 82 000 039 396)
203 Power Street,
Glendenning NSW 2761

Exempt Information (Section 75 of the Act)

Data items and details claimed exempt from publication: chemical name, other names, molecular and structural formulae, molecular weight, polymer constituents, residual monomers/impurities and detail of use.

2. IDENTITY OF POLYMER

Marketing Name(s)

Polymer in EPS 5724

CAS Number

Not assigned

Molecular Weight

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

The notified polymer contains only low concern functional groups.

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:	Thick amber liquid
Melting Point/Glass Transition Temp	36±2°C
Density	0.9964 kg/m ³
Water Solubility	Not determined. The notified polymer is expected to have low solubility in water based on its predominantly hydrophobic structure and use in non-aqueous products.
Dissociation Constant	Estimated. pKa = 4.6 and pKa = 9.5 are consistent with the notified polymer functional groups. However, the notified polymer is not expected to ionise readily in the environment due to expected low solubility.
Reactivity	While the notified polymer contains hydrolysable functionality, hydrolysis is not expected to occur within the

Degradation Products environmental pH range.
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	<7	<7	<7	<7	<7

Use

The notified polymer will not be manufactured or reformulated in Australia. It will be imported into Australia at a concentration of <32%.

The notified polymer will be used as a component of coatings and sealers used on concrete, brick and masonry at a concentration of <32%. It will be available in the retail market for Do-It-Yourself (DIY) users. It will be applied using roller, brush or lambs wool applicators. Spray application is not anticipated.

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 unacceptable given the assumed low hazard.

7. ENVIRONMENTAL RISK ASSESSMENT

No ecotoxicological data were submitted. Polymers with low charge density are generally of low concern to the environment. There is no release to the environment in Australia from manufacture or reformulation. Most of the notified polymer will be irreversibly incorporated within the sealant matrix on bricks, concrete and mortar once cured and it is expected that these articles will eventually be disposed of to landfill. Release of the notified polymer to the aquatic environment is not expected during use as residues in equipment washings and import containers are expected to be collected and disposed of to landfill. Release of the notified polymer to sewer may occur if equipment washings are improperly disposed of to sewer following domestic use. However, due to low water solubility the notified polymer is expected to adsorb to sludge during sewage treatment and be disposed of to landfill. The notified polymer is not expected to be readily degradable but due to its high molecular weight it is not expected to bioaccumulate. When disposed of to landfill, the notified polymer is expected to eventually degrade to form water and oxides of carbon and nitrogen. Therefore, based on its assumed low hazard and reported use pattern, the notified polymer is not considered to pose an unacceptable risk to the environment.

8. RECOMMENDATIONS

Human Health Risk Assessment

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

Environmental Risk Assessment

Based on the assumed low hazard and the reported use pattern, the notified polymer is not considered to pose an unacceptable 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 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 to landfill.

Emergency Procedures

- Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.
- 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 coatings and sealers, 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 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 the product containing the notified polymer was provided by the applicant. The accuracy of the information on the MSDS remains the responsibility of the applicant.