File No PLC/854

NATIONAL INDUSTRIAL CHEMICALS NOTIFICATION AND ASSESSMENT SCHEME (NICNAS)

POLYMER OF LOW CONCERN FULL PUBLIC REPORT

Polymer in Optiflo L1400

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 notification has been carried out under the approved foreign scheme provisions (Canada) of Section 44 of the Act. The health and environment hazard assessment of the Canadian report was provided to NICNAS and utilised in the writing of this assessment report. The notified polymer was assessed under the schedule 9 RRR criteria in Canada. 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

November 2009

Table of Contents

1. APPLICANT AND NOTIFICATION DETAILS 2
2. IDENTITY OF POLYMER 2
3. PLC CRITERIA JUSTIFICATION 2
4. PHYSICAL AND CHEMICAL PROPERTIES 2
5. INTRODUCTION AND USE INFORMATION 3
6. HUMAN HEALTH RISK ASSESSMENT 3
7. ENVIRONMENTAL RISK ASSESSMENT 3
8. RECOMMENDATIONS 3

1. APPLICANT AND NOTIFICATION DETAILS

Applicants
Amtrade International Pty Ltd (ABN 49 006 409 936)
Level 6, 574 St Kilda Road
Melbourne VIC 3004

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, use details and import volume.

2. IDENTITY OF POLYMER

Marketing Name(s)
Optiflo L1400 (contains the notified polymer at concentrations from 18-22%).

Molecular Weight

Number Average Molecular Weight (Mn) is > 10,000 Da

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

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	Imported as an aqueous solution
Density	1040 kg/m^3 at 25°C (for Optiflo L1400)
Water Solubility	Imported as an aqueous solution
Particle Size	Imported as an aqueous solution
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

Year	*1*	*2*	*3*	*4*	*5*
Tonnes	10-50	10-50	10-50	10-50	10-50

Use
The notified polymer will not be manufactured but will be imported as an aqueous solution at concentrations of 18-22%.
Products containing the notified polymer will be reformulated in Australia.
The notified polymer will be used as a component of paints at a concentration of < 1%.

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

Based on the chemical composition, size and structure the notified polymer is not anticipated to break down easily biotically or abiotically. The notified polymer has a molecular weight greater than 10,000 Daltons and no significant percentage of low molecular weight constituents. Due to molecular size it is thus not expected to be able to cross biological membranes, therefore making bioaccumulation unlikely.
No ecotoxicological data were submitted. Polymers without significant ionic functionality are of low concern to the aquatic environment.
Aqueous waste streams from production and packaging will be treated on-site, with the notified polymer expected to partition to the solid phase. Cured paint collected as drips, spills and overspray will be disposed of to landfill, where it is expected to remain immobile and slowly degrade. Finished coatings that are sent to landfill when coated articles are discarded will share the same fate. If paint residues are washed to sewer while cleaning equipment, the notified polymer is expected to partition to sludge during sewage treatment. If released into the environment the notified polymer is anticipated to be available to aquatic biota at first, but due to its size is expected to be removed fairly quickly from the water column by sorption. The notified polymer would therefore be anticipated to mainly end up in sediment, adsorbed to organic/inorganic matter. These considerations are expected to ensure minimal aquatic exposure. Therefore, the notified polymer is not considered to pose a risk to the environment.

8. RECOMMENDATIONS

Human Health Risk Assessment
When used in the proposed manner, the notified polymer is not considered to pose an unacceptable risk to the health of workers or the public.

Environmental Risk Assessment
Based on the reported use pattern, the notified polymer is not considered to pose a 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.

- Spray application should be carried out in accordance with the Safe Work Australia *National Guidance Material for Spray Painting* [NOHSC (1999)].

- 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.

Environmental Recommendations

- No specific control measures are required to minimise release of the notified polymer to the environment, however, these should be selected on the basis of all ingredients in the formulation.

Disposal

- The notified polymer should be disposed to landfill.

Emergency Procedures

- Large spills of products containing the notified chemical should be contained by dyking and pumped into resealable containers for recycling or disposal in accordance with State/Territory legislative requirements. Smaller spills should be contained by dyking and be absorbed with inert materials before being collected for 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 paints, or is likely to change significantly;
- the amount of notified polymer being introduced has increased, 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 was provided by the applicant. The accuracy of the information on the MSDS remains the responsibility of the applicant.