

File No PLC/787

August 2008

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

FULL PUBLIC REPORT

PV003

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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FULL PUBLIC REPORT**PV003****1. APPLICANT AND NOTIFICATION DETAILS**

APPLICANT(S)

Dai Nippon Printing Co. (Australia) Pty Ltd (ABN 27 001 364 709)
Suite 1002, Level 10, St. Martins Tower, 31 Market Street, SYDNEY NSW 2000

J.A. Davey Pty Ltd (ABN 35 109 032 322)
626 Lorimer St, PORT MELBOURNE VIC 3207

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, Use Details and Manufacture/Import Volume.

2. IDENTITY OF CHEMICAL

MARKETING NAME(S)

PV003

MOLECULAR WEIGHT (MW)

Number Average Molecular Weight (Mn) >1000 Da

REACTIVE FUNCTIONAL GROUPS

The notified polymer contains only low concern functional groups.

3. PLC CRITERIA JUSTIFICATION*Criterion*

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

Criterion met

Yes
Yes
Yes
Yes
Yes
Yes
Yes

The notified polymer meets the PLC criteria.

4. PHYSICAL AND CHEMICAL PROPERTIES

Appearance at 20°C and 101.3 kPa	Slightly yellow solid flakes
Melting Point/Glass Transition Temp	Not determined. Decomposition occurs at >200°C
Density	1220 kg/m ³ at 25°C
Water Solubility	<1 g/L at 20°C (Method not reported)
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>
<i>Tonnes</i>	<1	<1	<1	<1	<1

USE

The notified polymer will be used as a component of laminate in films to be used for thermal transfer printing.

Mode of Introduction and Disposal

The notified polymer will be imported at 7% as a component of laminate in films. The films will be imported in individual rolls or contained within purpose-built cartridges.

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

Handling rolls of the film containing the notified polymer is likely to lead to greater exposure than handling of film contained within purpose-built cartridges. However, handling rolls of film is not expected to lead to significant exposure to the notified polymer as it will be affixed to the surface of the film and is not designed for release during handling. Film will be inserted in thermal transfer printers where the notified polymer will be transferred to the image substrate by automated processes. Dermal contact with the notified polymer is possible during handling of the image substrate but it is expected to be trapped to the image substrate and exposure is not anticipated.

Overall, the OHS risk presented by the notified polymer is not expected to be unacceptable, based on the minimal exposure to workers and the assumed low hazard of the polymer.

Public Health Risk Assessment

Members of the public may be exposed to the notified polymer during home use of films in electronic imaging equipment. These exposures are expected to be similar to those for workers. However, it is expected that the public will use thermal transfer printers less often than workers.

7. ENVIRONMENTAL IMPLICATIONS

Hazard Characterisation

No ecotoxicological data were submitted.

Environmental Risk Assessment

As release to the aquatic environment is not expected at any stage of the notified polymer's lifecycle within Australia, the notified polymer is not expected to pose an unacceptable risk to the aquatic environment based on its reported use pattern.

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

The notified polymer is not considered to pose a risk to the environment based on its reported use pattern.

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.

Environment

- Do not allow material or contaminated packaging to enter drains, sewers or water courses.

Disposal

- The notified polymer should be disposed of in landfill.

Emergency procedures

- Spills and/or accidental release of the notified polymer should be reused, disposed of to landfill or incinerated as appropriate.

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 a component of films for thermal transfer printers or is likely to change significantly;
 - the amount of notified polymer being introduced has increased from 1 tonne, 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.

No additional secondary notification conditions are stipulated.

Material Safety Data Sheet

The MSDS of 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.