File No PLC/788

July 2008

NATIONAL INDUSTRIAL CHEMICALS NOTIFICATION AND ASSESSMENT SCHEME (NICNAS)

FULL PUBLIC REPORT

Polymer in Superchlon NK-260

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

TABLE OF CONTENTS

FULL PUBLIC REPORT

Polymer in Superchlon NK-260

1. APPLICANT AND NOTIFICATION DETAILS

APPLICANT(S)
PPG Industries Australia Pty Ltd (ABN 82 055 500 939)
McNaughton Rd
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, Use Details, Manufacture/Import Volume.

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)
None

NOTIFICATION IN OTHER COUNTRIES
USA, EU

2. IDENTITY OF CHEMICAL

MARKETING NAME(S)
Superchlon NK-260 (<50% notified polymer)
499-57708 U-7018 (070CB) -U-2 SB SOFLEX3330 (imported paint product)

CAS NUMBER
None allocated

MOLECULAR WEIGHT (MW)
Number Average Molecular Weight (Mn) >10,000 Da

REACTIVE FUNCTIONAL GROUPS

The notified polymer contains a high concern functional group. However it meets the PLC criteria because its Mn is >10,000 Da (no restrictions on reactive 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:	Colourless to pale yellow viscous liquid
Melting Point	60°C
Glass Transition Temp	0°C
Density	930 kg/m^3 (temperature of measurement not provided)
Water Solubility	260 mg/L at 20°C
Dissociation Constant	Contains acidic functionalities that are expected to show typical acidity.
Reactivity	None under normal conditions of use. May react with metals or compounds such as amines and degrade to release hydrochloric acid. Contains hydrolysable functionalities, but this is unlikely to occur in the environmental pH of 4-9.
Degradation Products	May generate hydrochloric acid if heated to >140°C.

5. INTRODUCTION AND USE INFORMATION

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

Year	*1*	*2*	*3*	*4*	*5*
Tonnes	< 1	<1	<1	<1	<1

USE
The notified polymer is used in an OEM primer for automotive paints.

Mode of Introduction and Disposal
The notified polymer will not be manufactured or reformulated in Australia. It will be imported in a finished paint product and comprise 1% of the paint, and 2.1% of the paint solids.

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. The notified polymer contains a reactive functional group that is known to induce sensitisation in exposed individuals, cause irritation to the eye and skin, and possibly to the respiratory tract. However, as the molecular weight of the notified polymer is high, it is unlikely that the notified polymer will induce these effects.

Occupational Health and Safety Risk Assessment
In the proposed occupational setting, dermal, ocular and inhalation exposure to aerosols may occur during:

- Spray painting of test panels in spraybooths;
- Transfer of paint into mixing tanks;
- Manual spraying of paint onto car parts (if robots are not operational)
- Cleaning of spray equipment.

Worker exposure is expected to be reduced due to engineering controls such as air extraction systems and downdrafting in spraybooths and wearing of appropriate PPE (vapour masks and full-length protective clothing).

After application and once dried, the paint containing the notified polymer is cured into an inert matrix and the polymer is unavailable for exposure.

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

Public Health Risk Assessment
The paint products containing the notified polymer will not be sold to the public. The public may experience dermal contact with the cured paint coating containing the notified polymer, however the risk to public health will be minimal because the notified polymer is cured into an inert matrix and is assumed to be of low hazard.

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
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 to landfill.

Storage

- Store in a cool dry place away from sources of heat.
- Store away from oxidising agents, strong acids and strong bases.

Emergency procedures

- Use absorbents (soil, sand or other non-combustible material) to collect spilled material and seal in properly labelled containers for 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 an OEM primer for automotive paints, 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.

Material Safety Data Sheet
The MSDS of the notified polymer and products containing the notified polymer provided by the notifier were reviewed by NICNAS. The accuracy of the information on the MSDS remains the responsibility of the applicant.