File No PLC/1154

NATIONAL INDUSTRIAL CHEMICALS NOTIFICATION AND ASSESSMENT SCHEME (NICNAS)

POLYMER OF LOW CONCERN PUBLIC REPORT

Polymer in F-14

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 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 the Environment.

For the purposes of subsection 78(1) of the Act, this Public Report may be inspected at our NICNAS office by appointment only at Level 7, 260 Elizabeth Street, Surry Hills NSW 2010.

This 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

October 2013

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SUMMARY

The following details will be published in the NICNAS *Chemical Gazette:*

ASSESSMENT REFERENCE	APPLICANT(S)	CHEMICAL OR TRADE NAME	HAZARDOUS SUBSTANCE	INTRODUCTION VOLUME	USE
PLC/1154	BASF Australia Ltd	Polymer in F-14	No	≤ 5 tonnes per annum	Component of floor care polish products

CONCLUSIONS AND REGULATORY OBLIGATIONS

Human Health Risk Assessment
Based on the assumed low hazard and the assessed use pattern, the notified polymer is not considered to pose an unreasonable risk to the health of workers and the public.

Environmental Risk Assessment
Based on the assumed low hazard and the assessed use pattern, the notified polymer is not considered to pose an unreasonable 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 (M)SDS should be easily accessible to employees.

- Spray applications should be carried out in accordance with the Safe Work Australia Code of Practice for *Spray Painting and Powder Coating* (Safe Work Australia, 2012) or relevant State or Territory Code of Practice.

- If products and mixtures containing the notified polymer are classified as hazardous to health in accordance with the *Globally Harmonised System for the Classification and Labelling of Chemicals (GHS),* as adopted for industrial chemicals in Australia, workplace practices and control procedures consistent with provisions of State and Territory hazardous substances legislation should be in operation.

Environmental Recommendations

- No specific control measures are required to minimise release of the notified polymer to the environment.

Disposal

- The notified polymer should be disposed of to landfill.

Emergency Procedures

- 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 component of floor care polish products, 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 notified polymer 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 (M)SDS of products containing the notified polymer was provided by the applicant. The accuracy of the information on the (M)SDS remains the responsibility of the applicant.

ASSESSMENT DETAILS

1. APPLICANT AND NOTIFICATION DETAILS

Applicants
BASF Australia Ltd (62 008 437 867)
Level 12, 28 Freshwater Place
SOUTHBANK VIC 3006

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, spectral data, polymer constituents, residual monomers/impurities, and import volume.

2. IDENTITY OF POLYMER

Marketing Name(s)
F-14 (contains the notified polymer at 20-40% concentration).

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

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	Translucent liquid
Melting Point/Glass Transition Temp	Not determined
Density	1030 kg/m^3 at 20 °C
Water Solubility	Expected to have low water solubility based on its predominately hydrophobic structure and the manufacturer's empirical observations.
Reactivity	Stable under normal environmental conditions
Degradation Products	None under normal conditions of use

***** For F-14 containing the notified polymer in aqueous solution at 20-40% concentration.

5. INTRODUCTION AND USE INFORMATION

Maximum Introduction Volume of Notified Chemical (100%) Over Next 5 Years

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

Use
The notified polymer will not be manufactured in Australia. The notified polymer will be imported into Australia as a component of an aqueous product at a concentration of 20-40% for formulation of floor care polish products containing the notified polymer at < 5% concentration at customer's sites. The finished products will be used by professional contractors and will not be sold to the general public.

6. HUMAN HEALTH RISK ASSESSMENT

The notified polymer will be imported by sea as a component of a product at a concentration of 20-40%, contained in 200 L plastic drums and 1000 L intermediate bulk containers (IBC), and transported to a warehouse for storage. Transport and warehouse workers may come into dermal and ocular contact with the notified polymer at a concentration of 20-40% through accidental leakage and spillage of containers.

The notified polymer will be delivered to industrial customers where the notified polymer will be transferred into a mixing vessel and blended with other components to produce a final product containing the notified polymer at 1-2% concentration. During the blending process samples will be removed for quality control checks. The final product will be transferred into 5 L bottles. During the transfer, blending, quality control testing and final transfer into 5 L bottles, workers may come into dermal and ocular contact with the notified polymer at a concentration of up to 40% through accidental leakage and spillage of containers. Workers will use personal protective equipment to reduce the risk of exposure.

The finished product containing the notified polymer at 1-2% concentration will be applied to flooring by professional contractors. These workers may come into dermal and ocular contact with the notified polymer at 1-2% concentration through accidental leakage and spillage of containers. Workers will use personal protective equipment to reduce the risk of exposure.

The general public will be exposed to flooring coated with the notified polymer. However, once applied to flooring and dried, the notified polymer should not present a risk to workers or the general public as the notified polymer will be bound to the matrix of the flooring. The notified polymer will be gradually worn down by foot traffic, however the risk of the notified polymer through exposure in this manner is not considered to be an unreasonable risk given the assumed low hazard.

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 unreasonable given the assumed low hazard and the assessed use pattern.

Although not considered in this risk assessment, NICNAS notes that the notified polymer contains residual monomers that are classified as hazardous according to the *Approved Criteria for Classifying Hazardous Substances* [NOHSC: 1008 (2004)]. These are not present in the notified polymer as introduced above the cut off concentrations for classification.

7. ENVIRONMENTAL RISK ASSESSMENT

No ecotoxicological data were submitted. Polymers without significant ionic functionality are generally of low concern to the environment.

Minor amounts of the notified polymer are expected to be released due to mixing of chemicals, cleaning of equipment and residues in empty containers. The washings will be collected in holding tanks before being disposed to sewer via trade waste licence agreement with State/Territory regulations. At the waste treatment plant, the notified polymer is expected to be efficiently removed with the sludge based on its low water solubility, high molecular weight and hydrophobic structure. Empty containers are expected to be collected and sent to a licensed waste facility for disposal in accordance with State/Territory regulations.

The majority of the notified polymer will be bound to floor substrates. Stripped off floor coverings containing the notified polymer are expected to be disposed of to landfill. In landfill, the notified polymer is not expected to leach. With time, it is expected to degrade slowly into water and oxides of carbon through biotic and abiotic pathways. Therefore, the notified polymer is not expected to pose an unacceptable risk to the environment when it is used as proposed.