

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

**POLYMER OF LOW CONCERN PUBLIC REPORT**

**Polymer in Infineum V351**

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 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**

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This assessment report is for an extension of the original assessment certificate for Polymer in Infineum V351. Based on information provided by the extension notifier, some sections of the original assessment report for IMCD Australia Ltd have been modified. These modifications have been made under the heading '*Extension Application*' in the respective sections.

## **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
EX/184	The Shell Company of Australia Ltd	Polymer in Infineum V351	No	≤ 5 tonnes per annum	Component of lubricant

## **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.

### **Risk assessment relating to extension application**

The use and environmental fate described in the extension application are not expected to impact the outcomes of the original human health and environment risk assessment and recommendations.

### **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 *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 in accordance with local regulations for recycling, re-use or recovery of calorific content.

**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 component of lubricant] 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 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.

## **ASSESSMENT DETAILS**

### **1. APPLICANT AND NOTIFICATION DETAILS**

**Applicants**Holder of the Original Assessment Certificate (PLC/1096)

IMCD Australia Ltd (ABN 44 000 005 578)

1<sup>st</sup> Floor, 372 Wellington Road, Mulgrave, VIC 3170

Applicant for an Extension of the Original Assessment Certificate

The Shell Company of Australia Ltd (ABN 46 004 610 459)

8 Redfern Road

Hawthorn East VIC 3123

**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, reactive functional groups polymer constituents, residual monomers/impurities, use details, and import volume.

**2. IDENTITY OF POLYMER****Marketing Name(s)**

Infineum V351 (containing the notified polymer at > 50%)

Extension Application

Helix Ultra Extra 5W-30 (containing the notified polymer at < 1%)

**Molecular Weight**

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

**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	Viscous liquid (product)
Melting Point/Glass Transition Temp	Not determined
Density	920 kg/m <sup>3</sup>
Water Solubility	0.0086 g/L at 20 °C, pH 2-9 (OECD TG 120, loading rate 10 g polymer/L)
Particle Size	Imported in 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**Original Application

<i>Year</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Tonnes	< 1	1-10	1-10	1-10	1-10

Extension Application

<i>Year</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Tonnes	< 1	1-5	1-5	1-5	1-5

**Use**

The notified polymer will be imported either in the final product at a concentration of < 1%, or in Infineum V351 at a concentration of > 50%. Reformulation of Infineum V351 into the final product will occur in Australia. The notified polymer will be used as a lubricating oil additive, predominately for industrial applications.

**Extension Application**

The notified polymer will be imported in the bulk and packaged fully blended product, Helix Ultra Extra 5W-30, at a concentration of < 1%. There will be no reformulation in Australia.

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

**7. ENVIRONMENTAL RISK ASSESSMENT**

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

The notified polymer has limited potential for release to the aquatic environment during use or reformulation based on its use as an additive in engine oils. The majority of the imported quantity of notified polymer is expected to be thermally decomposed to water and oxides of carbon during use or as a result of waste oil re-use or recycling. A fraction of the notified polymer may be released to soil from engine leaks where it is expected to adsorb to soil particles based on its hydrophobicity. A proportion of the notified polymer may enter the aquatic environment through transport of soil particles contaminated with engine oil or through inappropriate disposal of waste oil. The notified polymer is expected to be associated with the sediment compartment where it is unlikely to be bioavailable. The notified polymer is not expected to cross biological membranes due to its high molecular weight and it is therefore not expected to bioaccumulate. Therefore, based on its assumed low hazard and reported use pattern, the notified polymer is not considered to pose an unreasonable risk to the environment.