

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

**POLYMER OF LOW CONCERN PUBLIC REPORT**

**Radialube 7257**

This Assessment has been compiled in accordance with the provisions of the *Industrial Chemicals (Notification and Assessment) Act 1989* (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**

September 2014

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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/1236	Robert Wee & Associates	Radialube 7257	No	≤ 100 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.

### 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.
- 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.

### Disposal

- Where reuse or recycling are not appropriate, dispose of the notified polymer in an environmentally sound manner in accordance with relevant Commonwealth, state, territory and local government legislation.

### 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 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.

**Safety Data Sheet**

The SDS of the notified polymer was provided by the applicant. The accuracy of the information on the SDS remains the responsibility of the applicant.

## ASSESSMENT DETAILS

This notification has been conducted under the cooperative arrangement with USA. The health and environmental hazard assessment components of the USA report were provided to NICNAS and, where appropriate, used in this assessment report. The other elements of the risk assessment and recommendations on safe use of the notified polymer were carried out by NICNAS.

### 1. APPLICANT AND NOTIFICATION DETAILS

#### Applicants

Robert Wee & Associates (ABN 71 899 891 347)  
6 Taylor Avenue  
LOCKLEYS SA 5032

#### 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 and import volume.

### 2. IDENTITY OF POLYMER

#### Marketing Name(s)

Radialube 7257

#### Molecular Weight

Number Average Molecular Weight (Mn) is > 1,000 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	Yellow liquid
Pour point:	≤ -30 °C
Density	959 kg/m <sup>3</sup> at 20 °C
Water Solubility	1.17 × 10 <sup>-6</sup> g/L (measured)
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>
Tonnes	1-100	1- 100	1-100	1-100	1-100

#### Use

The notified polymer will be imported at 100% into Australia. There is no reformulation in Australia. The end users of the polymer will blend the notified polymer with industrial oil/grease and hydraulic fluids at the time of use and use the polymer at concentrations of 20-40%.

## 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. Due to its high molecular weight, the notified polymer is not expected to have potential for biodegradation and it is expected to be stable under environmental conditions. The notified polymer is not expected to cross biological membranes due to its high molecular weight and low water solubility and, is therefore not expected to bioaccumulate.

The notified polymer will be imported into Australia to be used, only in industrial settings, as an industrial lubricant (oils/greases and hydraulic fluids) in enclosed mechanical equipment by trained professionals. The lubricant fluids may be topped up and refilled to enclosed units as required. During the use of lubricating fluid in sealed units, the notified polymer will be contained and its release is expected to be very low. Since the lubricant fluid will be used by professionals, intentional release of notified polymer into drains or to the aquatic environment is not expected. The release of the notified polymer from industrial activities is expected to be limited by the requirements for appropriate disposal of waste oil according to State/Territory regulations. The changed lubricating fluids are expected to be collected and stored for subsequent disposal via an authorised waste treatment facility. Most of the notified polymer is expected to be thermally decomposed from use or degraded during re-refining.

When lubricants containing the notified polymer are disposed of in accordance with State/Territory regulations, the notified polymer is expected to be recycled, re-refined or used as low grade burner fuel. It is likely that the notified polymer will be degraded into simpler compounds during re-refining with any residue partitioning to the heavy fractions which will be used as lubricating oils or asphalt. During combustion, the notified polymer is expected to form oxides of carbon and water vapour. The notified polymer is not expected to be released to the aquatic compartment in ecotoxicologically significant concentrations. Therefore, the notified polymer is not expected to pose an unreasonable risk to the environment based on its assessed use pattern.