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NATIONAL INDUSTRIAL CHEMICALS NOTIFICATION AND ASSESSMENT SCHEME (NICNAS)

FULL PUBLIC REPORT

Polymer in Klubertop TP 18-810

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Director
Chemicals Notification and Assessment

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FULL PUBLIC REPORT

Polymer in Klubertop TP 18-810

1. APPLICANT AND NOTIFICATION DETAILS

APPLICANT(S)
Kluber Lubrication Australia Pty. Ltd. (ABN 77 005 809 852) of 1st Floor, 3 Brand Drive Thomastown VIC 3074

NOTIFICATION CATEGORY
Synthetic 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, and Residual Monomers.

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, Canada, China, Korea (year not specified)

2. IDENTITY OF CHEMICAL

MARKETING NAME(S)
Klubertop TP 18-810 (<30% notified polymer)

MOLECULAR WEIGHT (MW)
Number Average Molecular Weight (Mn) >10000

3. COMPOSITION

PLC CRITERIA JUSTIFICATION

Criterion	*Criterion met (yes/no/not applicable)*
Molecular Weight Requirements	Yes
Functional Group Equivalent Weight (FGEW) Requirements	Not applicable
Low Charge Density	Yes
Approved Elements Only	Yes
No Substantial Degradability	Yes
Not Water Absorbing	Yes
Low Concentrations of Residual Monomers	Yes
Not a Hazard Substance or Dangerous Good	Yes

The notified polymer meets the PLC criteria. FGEW requirements do not apply due to high molecular weight, but the notified polymer does not contain reactive functional groups with FGEW <5000.

4. INTRODUCTION AND USE INFORMATION

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

Year	*1*	*2*	*3*	*4*	*5*
Tonnes	0.5	0.5	0.5	0.5	0.5

USE
An organic binder in a lubricant product for use in coating elastomer seals.

5. PROCESS AND RELEASE INFORMATION

5.1. Operation Description
No manufacturing, reformulation, or repackaging will occur in Australia. The notified polymer will be imported as part of a finished lubricant product (<30% total solids in water) in 15 L steel drums.

The lubricant will be dispensed directly onto the elastomer seal surface. The coating containing the notified polymer will then be dried or cured.

6. EXPOSURE INFORMATION

6.1. Summary of Environmental Exposure
Since the notified polymer is not manufactured or reformulated in Australia there will be no release due to these activities. During use release is generally from spills or container residues, since the application method will be precise and direct. Up to 0.2% (ie approximately 1 L annually) will remain in the emptied imported containers. The containers will be disposed of to a licensed waste contractor, who will either rinse and recycle the drum or dispose of it to landfill.

During its use and life of the elastomer seals there will be minor, gradual release of the cured notified polymer.

6.2. Summary of Occupational Exposure
During transport and storage, workers are unlikely to be exposed to the notified polymer except when packaging is accidentally breached.

Dermal and ocular exposure due to splashes and spillages can occur during dispensing or application processes. However, exposure to significant amounts of the notified polymer is limited because of the engineering controls and personal protective equipment worn by workers.

After application and once dried, the coating containing the notified polymer is cured into an inert matrix and is hence unavailable to exposure.

6.3. Summary of Public Exposure
The notified polymer is intended only for use in the elastomer manufacturing industry.

7. PHYSICAL AND CHEMICAL PROPERTIES

Appearance at 20°C and 101.3 kPa	Slightly yellow liquid with amine like odour
Softening Point	160°C
Density	1060 kg/m^3 (aqueous dispersion)
Water Solubility	<5x10^{-3} g/L
Particle Size	0.15-0.20 µm (monomodal)
Reactivity	Stable under normal environmental conditions
Degradation Products	None under normal conditions of use

8. HUMAN HEALTH IMPLICATIONS

8.1. Toxicology

No toxicological data were submitted.

8.2. Human Health Hazard Assessment

The notified polymer meets the PLC criteria and can therefore be considered to be of low hazard.

9. ENVIRONMENTAL HAZARDS

9.1. Ecotoxicology

No toxicological data were submitted.

9.2. Environmental Hazard Assessment

No ecotoxicity data were provided for the notified polymer. However, considering the low water solubility and limited exposure of the notified polymer to the aquatic compartment, the overall environmental hazard should be low.

10. RISK ASSESSMENT

10.1. Environment

There will be no direct release of the notified polymer to water compartments. A small amount of the notified polymer may be disposed of to landfill in the empty import containers, where it is unlikely to pose a hazard.

Once the polymer has cured on the elastomer seals it will be inert and durable. Over the life of the elastomer there may be minor loss of the polymer but the majority of it will share the fate of the elastomer seals at the end of their life. This will generally be disposed of to landfill, where the notified polymer will remain on the elastomer. Over time the polymer will degrade via abiotic and biotic processes.

The polymer is not expected to cross biological membranes due to its high molecular weight and expected low water solubility, and as such it should not bioaccumulate.

10.2. Occupational Health and Safety

The OHS risk presented by the notified polymer is expected to be low. The notified polymer may be present in formulations containing hazardous ingredients. If these formulations are classified as hazardous to health in accordance with the NOHSC Approved Criteria for Classifying Hazardous Substances, workplace practices and control procedures consistent with provisions of State and Territory hazardous substances legislation must be in operation.

10.3. Public Health

The notified polymer is intended for use in the elastomer manufacturing industry only, and will not be sold to the public. Following application, the notified will become trapped within a matrix and will not be bioavailable. Therefore, the risk to public from exposure to the notified polymer is considered negligible.

11. CONCLUSIONS – ASSESSMENT LEVEL OF CONCERN FOR THE ENVIRONMENT AND HUMANS

11.1. Environmental Risk Assessment

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

11.2. Human Health Risk Assessment

11.2.1. Occupational health and safety

There is Low Concern to occupational health and safety under the conditions of the

occupational settings described.

11.2.2. Public health

There is Negligible Concern to public health when used in the proposed manner.

12. MATERIAL SAFETY DATA SHEET

12.1. Material Safety Data Sheet

The notifier has provided MSDS as part of the notification statement. The accuracy of the information on the MSDS remains the responsibility of the applicant.

13. 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 NOHSC *Approved Criteria for Classifying Hazardous Substances*, workplace practices and control procedures consistent with provisions of State and Territory hazardous substances legislation must be in operation.

Environment

- The following control measures should be implemented by end users to minimise environmental exposure during use of Klubertop TP 18-810 containing the notified polymer:

  – Do not allow the material or contaminated packaging to enter drains, sewers or watercourses.

Disposal

- Solid wastes generated during industrial application should be disposed of to landfill through a licensed waste contractor. Liquid wastes and contaminated clean up materials should be exposed to air and cured before being sent to landfill for disposal.

Emergency procedures

- Spills/release of the notified polymer should be handled by containment with absorbent material, collection and storage in a sealable and labelled container for disposal in accord with local authorities.

13.1. Secondary Notification

The Director of Chemicals Notification and Assessment must be notified in writing within 28 days by the notifier, other importer or manufacturer:

(1) Under subsection 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 subsection 64(2) of the Act:
- if any of the circumstances listed in the subsection arise.

The Director will then decide whether secondary notification is required.