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

**FULL PUBLIC REPORT**

**Polymer in Ultraphil 7762**

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 and Heritage.

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**Director  
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## **TABLE OF CONTENTS**

1.	APPLICANT AND NOTIFICATION DETAILS .....	4
2.	IDENTITY OF CHEMICAL .....	5
3.	COMPOSITION.....	5
4.	INTRODUCTION AND USE INFORMATION .....	5
5.	PROCESS AND RELEASE INFORMATION.....	5
5.1.	Distribution, transport and storage.....	6
5.2.	Operation description.....	6
5.3.	Occupational exposure.....	6
5.4.	Release.....	8
5.5.	Disposal .....	8
5.6.	Public exposure .....	8
6.	PHYSICAL AND CHEMICAL PROPERTIES .....	9
7.	TOXICOLOGICAL INVESTIGATIONS .....	11
8.	ENVIRONMENT.....	11
8.1.	Environmental fate .....	11
8.2.	Ecotoxicological investigations.....	11
8.2.2.	Acute toxicity to aquatic invertebrates .....	11
9.	RISK ASSESSMENT .....	12
9.1.	Environment.....	12
9.1.1.	Environment – exposure assessment.....	12
9.1.2.	Environment – effects assessment.....	12
9.1.3.	Environment – risk characterisation.....	13
9.2.	Human health .....	13
9.2.1.	Occupational health and safety – exposure assessment.....	13
9.2.2.	Public health – exposure assessment.....	14
9.2.3.	Human health - effects assessment.....	14
9.2.4.	Occupational health and safety – risk characterisation.....	14
9.2.5.	Public health – risk characterisation.....	15
10.	CONCLUSIONS – ASSESSMENT LEVEL OF CONCERN FOR THE ENVIRONMENT AND HUMANS .....	15
10.1.	Hazard classification.....	15
10.2.	Environmental risk assessment.....	15
10.3.	Human health risk assessment.....	15
10.3.1.	Occupational health and safety.....	15
10.3.2.	Public health.....	15
11.	MATERIAL SAFETY DATA SHEET .....	15
11.1.	Material Safety Data Sheet.....	15
11.2.	Label .....	15
12.	RECOMMENDATIONS.....	16
12.1.	Secondary notification .....	16
13.	BIBLIOGRAPHY .....	16

<b>Polymer in Ultraphil 7762</b>
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**1. APPLICANT AND NOTIFICATION DETAILS**

APPLICANT(S)

Ciba Specialty Chemicals Pty Limited (ABN: 97 005 061 469)  
235 Settlement Rd,  
THOMASTOWN, VIC 3074

NOTIFICATION CATEGORY

Limited: Polymer with NAMW  $\geq 1000$  (greater than 1 tonne per year).

EXEMPT INFORMATION (SECTION 75 OF THE ACT)

Data items and details claimed exempt from publication:

Chemical name;  
CAS No.;  
Molecular weight;  
Molecular and structural formulae;  
Spectral data;  
Impurities;  
Import volume;  
Details of use; and  
Concentration of polymer in product.

VARIATION OF DATA REQUIREMENTS (SECTION 24 OF THE ACT)

Variation to the schedule of data requirements is claimed as follows:

Melting point/ Boiling point;  
Specific gravity;  
Vapour pressure;  
Water solubility;  
Hydrolysis as function of pH;  
Partition co-efficient;  
Absorption/desorption;  
Dissociation constant;  
Particle size;  
Flash point;  
Flammability limits;  
Autoignition temperatures;  
Explosive properties.

PREVIOUS NOTIFICATION IN AUSTRALIA BY APPLICANT(S)

None.

NOTIFICATION IN OTHER COUNTRIES

None.

## 2. IDENTITY OF CHEMICAL

OTHER NAME(S)  
Polymer in Ultraphil 7762.

MARKETING NAME(S)  
Ultraphil 7762.

### METHODS OF DETECTION AND DETERMINATION

ANALYTICAL METHOD      Infrared spectroscopy.  
Remarks                A reference spectrum was provided

## 3. COMPOSITION

DEGREE OF PURITY  
>90%.

HAZARDOUS IMPURITIES/RESIDUAL MONOMERS  
None.

NON HAZARDOUS IMPURITIES/RESIDUAL MONOMERS (> 1% by weight)  
There are two non-hazardous impurities/residual monomers.

ADDITIVES/ADJUVANTS  
There are twelve additives/adjuvants.

DEGRADATION PRODUCTS  
The polymer is stable under normal conditions. There are no degradation products. In the case of fire and full oxidation the following decomposition products may arise:- SiO<sub>2</sub>, CO<sub>2</sub>, H<sub>2</sub>O, and nitrogen oxides.

LOSS OF MONOMERS, OTHER REACTANTS, ADDITIVES, IMPURITIES  
The loss of residual reactants is likely.

## 4. INTRODUCTION AND USE INFORMATION

MODE OF INTRODUCTION OF NOTIFIED CHEMICAL (100%) OVER NEXT 5 YEARS  
The notified polymer will be imported in an aqueous emulsion, containing less than 20% of the notified polymer.

### 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>
<i>Tonnes</i>	3-10	3-10	3-10	3-10	3-10

USE  
The polymer will be used in textile processing.

## 5. PROCESS AND RELEASE INFORMATION

### 5.1. Distribution, transport and storage

PORT OF ENTRY  
Melbourne.

IDENTITY OF MANUFACTURER/RECIPIENTS  
Industrial chemical manufacturers and reformulators.

TRANSPORTATION AND PACKAGING  
The notified polymer will be imported in 200 L stainless steel drums with screw top bungs and will be transported from the importer's warehouse to textile chemical formulators in the same drums.

### 5.2. Operation description

The imported polymer emulsion will be stored at the notifier's site and transported to textile finishing facilities. At the textile finishing facility the polymer emulsion is diluted and blended with other ingredients then applied to fabric by using the exhaustion method or the padding method. The wet dyed fabric is cured in dry ovens. The final concentration of the Ultraphil 7762 in the dye bath is 1-4%.

### 5.3. Occupational exposure

*Number and Category of Workers*

<i>Category of Worker</i>	<i>Number</i>	<i>Exposure Duration</i>	<i>Exposure Frequency</i>
<i>Transport and Storage</i>			
Transporting from dock to notifier's site for warehousing (loading/unloading trucks)	6-8	2-3 hours/day	10-15 days/year
<i>Textile Finishing Facility</i>			
<b>Exhaustion Method</b>			
Blending/dilution	5	40mins /day (over 2-3 shifts)	75 days/year
Dyeing	6	10mins/day (over 2-3 shifts)	75 days/year
Drying			
Unloading dyeing machines	6	2 mins/day (over 3 shifts)	75 days/year
Loading drying machines	6	5 mins/day (over 3 shifts)	75 days/year
Laboratory Quality control	2	5 mins/day	75 days/year
Cleaning of equipment	10	2 hours/day	250 days/year
<b>Padding Method</b>			
Preparation of baths	20-30	8 hours/day	5 days/week
Textile treatment or coating	120	8 hours/day	250 days/year
Laboratory Quality control	2	5 mins/day	75 days/year
Cleaning of equipment	10	2 hours/day	250 days/year

*Exposure Details*

*Transport and storage*

The polymeric emulsion containing the notified polymer will be transported by road in 200 L stainless steel drums to the notifier's warehouse. Waterside workers, transport drivers and warehouse workers would only be exposed to the aqueous emulsion in the event of an accident. Workers will wear dermal and ocular protection when cleaning up spillages.

## *Application Processes*

The aqueous emulsion will be transported by road to textile finishing applicators nationally. The aqueous emulsion will be applied using the exhaustion method or the padding method

### The Exhaustion Method

#### *Blending/Dilution*

At the textile finishing facility, the polymer emulsion will be pumped into the dye bath via an automated pumping system in a dispensary under local exhaust ventilation. The concentration of Ultraphil 7762 in dye bath will be 1 – 4%. The dye solution is then pumped through a closed system to a dyeing machine. Dermal and ocular exposure to the notified polymer may occur as a result of drips and spills during the connection and disconnection of the pumps. However, as a precaution workers will wear tightly fitting safety goggles, chemical resistant protective gloves and overalls.

#### *Dyeing*

The cloth to be dyed is fed into the dyeing machine. Workers involved with feeding fabric into the dyeing machine may be exposed to the solution in the event of a tangle, where it may be necessary to let the machine cool and then to open it to remove the tangle. Workers will wear tightly fitting safety goggles, chemical resistant protective gloves and overalls when untangling the fabric.

Once dyed, the textiles will be cured in drying ovens and dried without rinsing. During curing, no harmful degradation products are expected to be released. The drying ovens will be fitted with forced ventilation. Workers handling the wet dyed cloth after unloading the dyeing machine and before transferring to the curing and drying machine may be exposed to aerosols that may be generated and therefore the handling of undried fabric is carried out under local exhaust ventilation. Workers will wear tightly fitting safety goggles, chemical resistant protective gloves and overalls.

#### *Laboratory*

Laboratory technicians at the textile finishing facility will be involved in quality control checks on the dye solution. Laboratory technicians will wear standard laboratory protective equipment.

Handling of cured treated materials would not result in exposure to the notified polymer as it will be fixed onto the fibre surface or embedded in a matrix of the other polymers and ingredients and not separately available for exposure.

#### *Cleaning of Equipment*

The dyeing machines are predominantly self-cleaning as a result of the washing cycle of the dyeing process. The filters on the dyeing machines, which are used to collect loose fibres, are cleaned on a regular basis by the operators using a hose. During the cleaning of equipment workers will wear goggles, chemical resistant protective gloves and overalls.

### Padding Method

#### *Preparation of treatment solution (1-4%)*

Ultraphil 7762 is pumped into a blending vessel along with other ingredients. The solution is then pumped into the padding machine. The in-use concentration of Ultraphil 7762 is 1-4%. The process is automated and enclosed. During the preparation of the baths or solutions dermal or ocular exposure may occur when handling the polymer emulsion from splashes and spills. Workers wear protective equipment including tightly fitting safety goggles, chemical resistant protective gloves, overalls and safety shoes to prevent worker exposure.

#### *Textile Treatment*

The material to be treated will run through a padder and pass through a set of mangle rollers to remove excess liquor from the material and then through the oven for drying (110 – 130°C) of the polymer onto the textile. Dermal and accidental ocular exposure may occur. Therefore workers will wear similar protective equipment to those when preparing a treatment bath. These include tightly fitting safety goggles, chemical resistant protective gloves, overalls and safety shoes.

#### *Laboratory*

Laboratory technicians at the textile finishing facility will be involved in quality control checks on the dye solution. Samples of the dye solution are taken via a sampling port into a sampling jar. Dermal and ocular exposure may occur to the notified polymer at this point. However, laboratory technicians will be handling very small quantities of the dye solution and therefore exposure is expected to be low. As a precaution laboratory technicians will wear safety goggles, chemical resistant protective gloves, and laboratory coats to prevent exposure.

There is negligible health risk for workers handling dry textiles, as the polymer will be bound to the textile fibres.

#### *Cleaning of equipment*

The dyeing machines are predominantly self-cleaning as a result of the washing cycle of the dyeing process. The filters on the dyeing machines, which are used to collect loose fibres, are cleaned on a regular basis by the operators, using a hose.

During the cleaning of equipment used for the padding method, workers will wear goggles, chemical resistant protective gloves and overalls to prevent exposure to the notified polymer.

Handling of cured treated materials would not result in exposure to the notified polymer as it will be fixed onto the fibre surface or embedded in a matrix of the other polymers and ingredients and not separately available for exposure.

### **5.4. Release**

#### **RELEASE OF CHEMICAL AT SITE**

The notified polymer will not be manufactured or repackaged in Australia. Local operations will include transport and storage, blending and application.

The polymer emulsion (containing <20% of the notified polymer) will be transported to Australia by ship in 200 L stainless steel drums with screw top bungs and will be transported directly to the notifier's warehouse for housing before being distributed to textile finishing industries.

Release to the environment may occur in the unlikely event of an accident during transport or an accidental leak.

#### **RELEASE OF CHEMICAL FROM USE**

Residual material in the import steel drums is washed out with water and may be used in blending subsequent batches. The empty steel drums will then be reused or disposed of to landfill by a licensed waste contractor.

The major release of the notified polymer will be as a result of the treatment of fabrics. The notified polymer will be added to treatment vessels with the fabric. Allowing for a fixation rate of 85% for the notified polymer up to 1500 kg of the notified polymer may be released to the sewer.

Polymer adhering to the treated textile will undergo a curing process to bind to the polymer to the fabric.

Release may also occur from spills at the textile finishing sites during transfer of material in to blending vessels and exhaustion/padding machines or through accidental damage of drums. Spills are cleaned up by containing the spill with suitable absorbent material. Residues from such spills and empty containers at the textiles finishing sites would be disposed of to landfill by licensed waste contractor. Release from spills and leaks are expected to be 1% of imported volume.

### **5.5. Disposal**

Once bound to the fabric the notified polymer is expected to remain fixed throughout the useful life of the fabric. Hence it will share the fate of the fabric and be either disposed of in landfill or incinerated.

### **5.6. Public exposure**



The notified polymer and the products containing the notified polymer are not available for sale to the public. The potential for public exposure to the notified polymer during transport, application to textile or disposal is negligible. Members of the public will make dermal contact with the dried form of the notified polymer when handling treated textiles, however the risk to public health is negligible since the notified polymer is present at low concentrations and is unlikely to be bioavailable.

## 6. PHYSICAL AND CHEMICAL PROPERTIES

The notified polymer is prepared in an aqueous solution and is never isolated. The following physical and chemical properties mostly apply to the solution Ultraphil 7762.

**Appearance at 20°C and 101.3 kPa** Colourless to yellow liquid with weak characteristic odour

**Melting Point/Freezing Point** Not applicable

Remarks The product containing the notified polymer is a liquid

**Boiling Point** >100°C at 101.3 kPa (Ultraphil 7762)

Remarks Test report not provided.

**Density** 990 to 1010 kg/m<sup>3</sup> at 20°C (Ultraphil 7762)

Remarks Test report not provided.

**Viscosity** 20 mPa.s (Ultraphil 7762)

Remarks Test reports not provided.

**Vapour Pressure** 2.3 kPa at 20°C (Ultraphil 7762)

Remarks Test report not provided. The notified polymer is expected to have a very low vapour pressure based on its molecular weight

**Water Solubility** Low solubility.

Remarks Test report not provided. The notifier indicates that the product containing the notified polymer is microemulsion and is dispersible in water. The formulation contains several non-ionic surfactants/emulsifiers. The level of cationic functionalities is low and thus is likely to result in dispersibility rather than water solubility.

**Hydrolysis as a Function of pH** Not determined.

Remarks The notified polymer does not contain any functional groups which would be expected to hydrolyse within the environmental pH range (4-9).

**Partition Coefficient (n-octanol/water)** Not determined.

Remarks The notified polymer contains a hydrophobic backbone and hydrophilic and cationic groups in the side chain. Thus, it expected to have surface-active properties and a reliable partition coefficient cannot be obtained.

**Adsorption/Desorption** Not determined.

Remarks The notified polymer is expected to become associated with sediment as result of its surface activity and cationic nature.

<b>Dissociation Constant</b>	Not determined.
Remarks	The notified polymer will remain cationic throughout the environmental pH range (pH 4-9).
<b>Particle Size</b>	Not determined.
Remarks	The notified polymer is a liquid.
<b>Flash Point</b>	>95°C (Ultraphil 7762)
Remarks	Test report not provided.
<b>Flammability Limits</b>	Not determined.
Remarks	Not expected to flammable
<b>Autoignition Temperature</b>	Not determined.
Remarks	Not applicable for a liquid.
<b>Explosive Properties</b>	Not determined.
Remarks	Not expected to be explosive based on structure.
<b>Reactivity</b>	
Remarks	The MSDS for the product containing the notified polymer states that contact with alkaline products and temperatures less than 10°C and greater 60°C should be avoided

## 7. TOXICOLOGICAL INVESTIGATIONS

No toxicity data were submitted.

## 8. ENVIRONMENT

### 8.1. Environmental fate

No environmental fate data were submitted.

### 8.2. Ecotoxicological investigations

#### 8.2.2. Acute toxicity to aquatic invertebrates

TEST SUBSTANCE	Ultraphil HCT (product containing notified polymer)
METHOD	OECD TG 202 Daphnia sp. Acute Immobilisation Test
Species	<i>Daphnia magna</i>
Exposure Period	48 hours
Remarks - Method	Report supplied in German. Water quality parameter of pH (7.7-8.3), water temperature, O <sub>2</sub> content (7.7-8.9 mg/L) were within normal limits throughout the study.

#### RESULTS

Concentration mg/L Nominal	Number of <i>D. magna</i>	Number Immobilised 48 h
0	40	0
1.6	20	0
2.5	20	1
4.0	20	0
6.3	20	0
10	20	1
16	20	0
25	20	11
40	20	17
63	20	20
100	20	20

LC50	25 mg/L at 48 hours
NOEC (or LOEC)	16 mg/L at 48 hours
Remarks - Results	As the test report was submitted in German, details of the study are difficult to extract. It appears that the results were determined from pooled data from two test studies conducted at different periods. The first test examined concentrations up to 16 mg/L and the second test concentration of 25 mg/L and above.

CONCLUSION	The product containing the notified polymer is harmful to Daphnia.
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TEST FACILITY	Prufberichte de LAUS GmbH (2003)
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## 9. RISK ASSESSMENT

### 9.1. Environment

#### 9.1.1. Environment – exposure assessment

The notified polymer is intended for use in textile treatment. The major environmental exposure of the notified polymer is from wash water from fabric treating facilities. It is expected that the notified polymer will be used at a single facility.

Estimate for the predicted environmental concentration (PECs) resulting from the treatment of fabric in a worst case scenario, for the entire import volume being used at a single facility in Davenport Tasmania which feeds in to a primary sewage treatment plant (daily flow rate of 14,000 kL/day) where the receiving waters from the sewage treatment plant is ocean outfall, are provided in the following table:

Process or Dilution Factor	
Typical product use expected per day	240 kg <sup>a</sup>
Quantity in wash water (at a fixation rate of 85%)	36 kg
Typical daily volume of wash water effluent	2 ML/day
Effluent concentration	18 mg/L
Dilution factor in sewage treatment plant	1:7 <sup>b</sup>
Concentration balance in effluent from sewage treatment plant	
No removal of polymer in sludge:	2570 µg/L
90% removal of polymer in sludge: <sup>c</sup>	257 µg/L
Dilution factor in receiving waters	1:10 (ocean)
Predicted environmental concentration in receiving waters	
No removal of polymer in sludge:	257 µg/L
90% removal of polymer in sludge: <sup>c</sup>	25.7 µg/L
Dilution factor in receiving waters	1:1 (river)
Predicated environmental concentration in receiving waters	
No removal of polymer in sludge:	2570 µg/L
90% removal of polymer in sludge: <sup>c</sup>	257 µg/L

<sup>a</sup>Based on the maximum import volume for the product of 60,000kg per annum and exposure frequency of 250 days/year. <sup>b</sup>Based on Sewage treatment flow rate of 14,000 kL/day (Green 2001). <sup>c</sup>Boethling and Nabholz (1997)

The majority of the polymer will be bound to the fabric to which it is cured, remain with the fabric throughout its useful life and share its fate (either landfill or incineration).

#### 9.1.2. Environment – effects assessment

The product containing the notified polymer is moderately toxic Daphnia (EC50 = 25 mg/L). No data are available for fish or algae. Using the EC50 of 25 mg/L for Daphnia (assuming that the toxicity of the product is entirely due to the notified polymer) and a safety factor of 1000, since in the ecotoxicity study (note no English translation is available) the actual concentrations were not determined and therefore the results may underestimate the toxicity, a predicted no effect concentration (PNEC for aquatic ecosystems) of 0.025 mg/L has been estimated (EC50/1000).

### 9.1.3. Environment – risk characterisation

The environmental risk from the release of all the imported notified polymer can be used in determining the aquatic risk quotient ( $RQ = PEC/PNEC$ )

Removal by STP	PEC	PNEC	Risk Quotient (RQ)
Ocean			
0%	257 µg/L	25 µg/L	10.3
90%	25.7 µg/L	25 µg/L	1.0
River			
0%	2570 µg/L	25 µg/L	103
90%	257 µg/L	25 µg/L	10.3

The above risk quotients indicate an unacceptable risk ( $RQ \gg 1$ ) to aquatic organisms in all cases except for ocean discharge with 90% removal through sewage treatment. Given the ocean outfall in this case the risk quotient is marginal.

It should be noted that the PEC has been determined based on the maximum possible import volume from a range that masks the actual maximum import volume. The actual maximum import volume is anticipated to be lower. Hence the risk quotient would be  $<1$  if the true maximum import volume is used, resulting in an acceptable risk to aquatic organisms.

Polymer disposed of to landfill bound to fabric is expected to remain immobile and slowly degrade. Polymer which is incinerated, attached to fabric, will generate water, oxides of carbon and nitrogen and silicon dioxide.

## 9.2. Human health

### 9.2.1. Occupational health and safety – exposure assessment

#### *Transport and storage*

Waterside, transport and warehouse workers would only be exposed to the notified polymer in the event of an accident when the packaging is breached.

Dermal and ocular protection is recommended for workers involved in the cleaning of spillages that result from a breach.

#### *Application Processes*

##### The Exhaustion Method

#### *Blending/Dilution*

There may be dermal and ocular exposure, as a result of drips and spills which may occur when workers blend the polymer emulsion and feed the solution into an exhaust dyeing machine. As a precaution workers will wear tightly fitting safety goggles, chemical resistant protective gloves and overalls to minimise any exposure.

#### *Dyeing*

Dermal and ocular exposure of workers may occur during the untangling of fabric during dyeing and while transferring the fabric to the curing and drying machine. Workers will wear tightly fitting safety goggles, chemical resistant protective gloves and overalls to minimise any exposure. Workers transferring fabric to the curing and drying machine may be exposed to aerosols that may be generated and therefore the handling of undried fabric is carried out under local exhaust ventilation.

#### *Laboratory*

Laboratory technicians at the textile finishing facility will be involved in quality control checks on the dye solution. Laboratory technicians will wear standard laboratory protective equipment.

There is no likelihood of exposure for workers handling dry textiles, as the polymer will be bound to the textile fibres.

#### *Cleaning of Equipment*

During the cleaning of equipment workers will wear goggles, chemical resistant protective gloves and overalls to prevent exposure to the notified polymer.

#### Padding Method

##### *Preparation of treatment solution (1-4%)*

During the preparation of the baths or solutions, dermal or ocular exposure may occur when handling the polymer emulsion from splashes and spills. Workers wear protective equipment including tightly fitting safety goggles, chemical resistant protective gloves, overalls and safety shoes to prevent worker exposure.

#### *Textile Treatment*

Dermal exposure as result of drips and spills may occur if the treated materials become tangled with rollers. Workers will wear similar protective equipment to those when preparing a treatment bath.

#### *Laboratory*

Samples of the dye solution are taken via a sampling port into a sampling jar. Dermal and ocular exposure may occur to the notified polymer at this point. However, laboratory technicians will be handling very small quantities of the dye solution and therefore exposure is expected to be low. As a precaution laboratory technicians will wear safety goggles, chemical resistant protective gloves, and laboratory coats to prevent exposure.

Handling of cured treated materials would not result in exposure to the notified polymer as it will be fixed onto the fibre surface or embedded in a matrix of the other polymers and ingredients and will not separately available for exposure.

#### *Cleaning of Equipment*

During the cleaning of equipment, workers will wear goggles, chemical resistant protective gloves and overalls to prevent exposure to the notified polymer.

### **9.2.2. Public health – exposure assessment**

Public exposure may arise via dermal contact with fabric treated with the dried notified polymer. However, the notified polymer will be bound to the textile fibres and will not be available for absorption across the skin. Furthermore, the high molecular weight of the polymer also indicates that dermal absorption will be minimal. There will be minimal public exposure from transport, storage and industrial use.

### **9.2.3. Human health - effects assessment**

No toxicological information was provided for the notified polymer and therefore the notified polymer can not be classified according to the *NOHSC Approved Criteria for Classifying Hazardous Substances* (NOSHC, 2004).

Since the notified polymer has a high NAMW, absorption across biological membrane and resultant systemic toxicity would be restricted. Due to its very low vapour pressure, inhalation exposure is unlikely.

The notified polymer will only be imported as a component of textile processing formulation, which has been classified as hazardous. The risk phrases assigned on the MSDS for the textile processing formulation are: R41 – Risk of serious damage to eyes.

### **9.2.4. Occupational health and safety – risk characterisation**

The imported aqueous emulsion containing the notified polymer is classified as R41 – Risk of serious damage to the eyes. The emulsion is likely to be hazardous due to ingredients other than the notified polymer. Therefore, there is a limited risk of these effects during dilution/blending, dyeing, and quality control testing processes at the textile finishing sites. Work practices and PPE commensurate with the risk of this effect during charging of dye blending vessels, the dyeing process and quality control are expected to be employed. There will be no additional risk of adverse health effects due to the notified polymer.

#### **9.2.5. Public health – risk characterisation**

The risk to the public from importation of the notified polymer is likely to be minimal given its predicted low toxicity and limited likely exposure.

### **10. CONCLUSIONS – ASSESSMENT LEVEL OF CONCERN FOR THE ENVIRONMENT AND HUMANS**

#### **10.1. Hazard classification**

Based on the available data the notified polymer is not classified as a hazardous substance under the NOHSC *Approved Criteria for Classifying Hazardous Substances*.

and

As a comparison only, the classification of notified polymer using the Globally Harmonised System for the Classification and Labelling of Chemicals (GHS) (United Nations, 2003) is presented below. This system is not mandated in Australia and carries no legal status but is presented for information purposes.

The notified polymer would be classified as Acute Category 3. This category applies to chemicals or mixtures which have at least one measured toxicity endpoint (96 h LC50 for fish, 48 hr EC50 for crustacea or 96 h ErC50 for algae or aquatic plants) of  $\geq 10$  mg/L and  $\leq 100$  mg/L.

The notified polymer can not be classified for the human health endpoints.

#### **10.2. Environmental risk assessment**

On the basis of the PEC/PNEC ratio:

The notified polymer is not considered to pose a risk to the environment based on its reported use pattern in all but the ocean discharge of wastes from the textile plant through a sewage treatment plant. In the latter case the risk is acceptable provided the volume of polymer used remains below the maximum proposed import volume.

#### **10.3. Human health risk assessment**

##### **10.3.1. Occupational health and safety**

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

##### **10.3.2. Public health**

There is Negligible Concern to public health when used as described in the notification statement.

### **11. MATERIAL SAFETY DATA SHEET**

#### **11.1. Material Safety Data Sheet**

The MSDS of the notified polymer provided by the notifier was in accordance with the NOHSC *National Code of Practice for the Preparation of Material Safety Data Sheets* (NOHSC, 2003). It is published here as a matter of public record. The accuracy of the information on the MSDS remains the responsibility of the applicant.

#### **11.2. Label**

The label for the notified polymer provided by the notifier was in accordance with the NOHSC *National Code of Practice for the Labelling of Workplace Substances* (NOHSC, 1994). The accuracy of the information on the label remains the responsibility of the applicant.

## 12. RECOMMENDATIONS

### CONTROL MEASURES

#### Occupational Health and Safety

- Employers should implement the following safe work practices to minimise occupational exposure during handling of the notified polymer as introduced and as diluted for use:
  - minimise drips and spills
- 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 the notified polymer:
  - Do not allow material or contaminated packaging to enter drains, sewers, or water courses.

#### Disposal

- The notified polymer should be disposed of by either incinerating liquid wastes containing the notified polymer or solid waste to landfill.

#### Emergency procedures

- Spills/release of the notified polymer should be handled by containment to prevent run off sorbed onto an absorbent material (soil, sand or other inert material). Collect and seal in properly labelled containers for disposal.

### 12.1. 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 Section 64(1) of the Act; if
  - the importation volume for use at the proposed textile treatment facility approaches the proposed maximum importation volume of the notified polymer. The secondary notification package should include ecotoxicity studies for all three trophic levels; or
  - The notified polymer is to be used at a textile facility other than the one for which the assessment, detailed in the assessment report has been made. The secondary notification package should include ecotoxicity studies for all trophic levels along with details of the waste water treatment effluent from the plant.

or

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

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