File No.: PLC/221

NATIONAL INDUSTRIAL CHEMICALS NOTIFICATION AND ASSESSMENT SCHEME

FULL PUBLIC REPORT

Polymer in Maincote HG-86

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Director
Chemicals Notification and Assessment

April 2001

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1. APPLICANT

Rohm and Haas Australia Pty. Ltd. of 4th Floor, 969 Burke Road, Camberwell, Victoria 3124 (ABN 29 004 513 188) has submitted a notification statement in support of their application for an assessment certificate for the synthetic polymer of low concern (PLC) Polymer in Maincote HG-86.

2. IDENTITY OF THE CHEMICAL

The chemical name, CAS number, molecular and structural formulae, molecular weight, spectral data, details of the polymer composition and sites of manufacture and formulation have been exempted from publication in the Full Public Report.

Marketing names: Polymer in Maincote HG-86

3. POLYMER COMPOSITION AND PURITY

Details of the polymer composition have been exempted from publication in the Full Public Report.

Degree of Purity: very high

Hazardous impurities (other than residual monomers and reactants): None.

Non-hazardous impurities at 1% by weight or more: None.

4. PLC JUSTIFICATION

The notified polymer meets the PLC criteria.

5. PHYSICAL AND CHEMICAL PROPERTIES

Property	Result	Comments
Appearance	Milky white aqueous emulsion	
Melting point	0°C	Polymer emulsion
Density	1.06 g/cm^3	
Water solubility	5 ppm	See comments in 5.1
Hydrolysis	Will not undergo hydrolysis in the environment at pH 4-9	See comments in 5.1
Partition coefficient		See comments in 5.1
Dissociation constant	Not expected to dissociated under normal conditions.	
Particle size		Not applicable as the polymer is supplied as an aqueous emulsion.
Flammability	Not flammable	The dry polymer will support combustion.
Autoignition temperature		Not applicable.
Explosive properties	None	
Polymer stability/reactivity	Stable under normal conditions	The polymer is designed to be stable in the environment and under normal conditions of use and handling.

5.1 Comments on physical and chemical properties

Water solubility

The water solubility was determined by a turbidity method (Tran 2000). A sample of EXP-3741 PMN (Maincote HG-86) was diluted to various concentrations between 17 ppm to 330 ppm of polymer. The turbidity of the diluted preparations was measured by a turbidimeter and the results of each sample were plotted against the concentration of the product. All samples were turbid indicating that they were over saturated. The solubility of the polymer is the concentration at zero turbidity, which in this case corresponded to –2 ppm through extrapolation of the turbidity versus concentration plot. Calculation using the CALIB program obtained a value of 5 ppm for the solubility of the polymer.

Hydrolysis

Preliminary hydrolysis experiments were performed on EXP-3741 to identify hydrolysis reaction products (Klotz and Tran 2000, OECD TG 111). A sample of EXP-3741 was diluted in three different buffer solutions at pH 4, 7 and 9 and heated at 50°C for 5 days, at concentrations ranging from 0.03 mg/mL to 0.04 mg/mL. No hydrolysis reaction products were present under the experimental conditions when analysed by HPLC.

Partition coefficient

Due to the low water solubility of the notified polymer it is expected that the partition coefficient would be high, indicating a preference for the polymer to partition to the organic phase of soils and sediments.

6. USE, VOLUME AND FORMULATION

Use:

The notified chemical exists as an emulsion polymer used as a component in aqueous industrial and architectural house paints.

Manufacture/Import volume:

Initially the notified polymer will not be manufactured in Australia. It will be imported, in the form of an emulsion, at approximately 50 tonnes per annum in the first year, increasing to 100 tonnes per annum after 3 years.

After 3 years, manufacture of the notified chemical as an emulsion will commence at one site in Australia. Importation will cease at this time. Production levels of the notified polymer are estimated to be 120 and 150 tonnes per annum in years 4 and 5, respectively.

Formulation details:

The Maincote HG-86 polymer emulsion will produced via an exothermic polymerisation reaction of styrene and acrylic monomers in a pressure rated reaction vessel (10 000-20 000 L capacity). Following polymerisation, the polymer emulsion is transferred via a hard piped system to a holding tank where other ingredients are added. The concentration of the notified polymer in the emulsion will be 44%. The concentration of the notified polymer in the final paint product will be 20-30%.

7. OCCUPATIONAL EXPOSURE

Polymer in Maincote HD-86 will be imported at 44% as an emulsion, in 200 L steel drums and transported by road to a bunded storage site. Manufacture of the notified polymer as a 44% emulsion will be at one site and the emulsion will be packaged into 200 L drums and stored in a bunded area.

Drums will be transported from manufacture and storage sites, initially to two customers, who are also likely to store the drums in bunded areas before using the emulsion containing the notified polymer, as a component in the manufacture of aqueous industrial and house paints. Paints are sold in 0.5 to 20 L epoxy lined cans. The paints will be applied to metal surfaces and will contain 20-30% notified polymer.

The finished paint products will be sold through numerous retail and wholesale paint sellers and will be used in commercial and domestic premises by professionals and the public. Most applications will be made by brush, although spray applications may also be used.

The table outlines the activities involved at the various stages of handling the emulsion or paint containing the notified polymer where exposure to the notified chemical may occur. Import, storage/warehouse and transport workers (10 workers, ½-1 hour/day exposure on 50 days/year, for each category) will only be exposed in the event of accidental spillage and are not included in the table.

The emulsion and paint are non-volatile and exposure is likely to be via skin or eye. Inhalation of the notified polymer may occur when the paint is applied by spraying.

Nature of work (Number of workers)	**Exposure duration and frequency**	**Exposure details**	**Controls indicated by notifier**
Plant operators (10): Emulsion production & batch sampling. Filtering & drumming of emulsion.	1 h/d, 20d/year 8 h/d, 20d/year	Reaction vessel is sealed during the polymerisation process. Polymer emulsion is transferred via hard piping to a holding tank. Emulsion transferred from holding tank via hard piping to semi-automated drumming line.	PPE including impervious gloves, coveralls and safety glasses are worn. Safety showers are readily accessible. Safety training courses are run for all employees who handle chemicals.
Laboratory technicians (3)	1 h/d, 20d/year	Samples taken from holding tank.	
Paint makers (10-15)	2 h/d, 60d/year	Emulsion pumped from drums to mixing vessels.	Mixing vessels and filling lines have exhaust ventilation. Safety glasses, impervious gloves and coveralls must be worn.
Paint technicians (2-4)	0.5 h/d, 60d/year	QC testing of finished paint.	
Paint packers (4-6)	8 h/d, 100d/year	Paint transferred via hard piping to semi-automated filling line.	
Paint sales people (>100)	0.5 h/d, 100d/year	Cans may be opened to tint paint with colourant.	PPE is not necessarily worn.
Professional painters (>100)	8 h/d, 50d/year	Paint application by brush or roller. May also use spray application.	Safety instructions are presented on cans, including use of respiratory protection when spray painting.
Do-it-yourself painters (>1000)	6 h/d, 5d/year	Paint application by brush or roller.	

8. PUBLIC EXPOSURE

During transportation of the notified polymer from import or manufacturing sites, exposure to the public of the notified polymer will only occur in the event of an accidental spill. According to the MSDS provided for Maincote HG-86, spills should be contained with inert material (eg. sand or earth) and prevented from entering municipal sewers and open bodies of water.

The polymer emulsion, Maincote HG-86, will be sold to 2 manufacturing companies, which will manufacture finished paint products, containing 20-30% notified polymer. Finished paint products will be available to the public through numerous retail paint sellers. Therefore do-it-yourself painters in the public will be exposed to the notified polymer through the application of paint (by brush or spray) to metal surfaces.

9. ENVIRONMENTAL EXPOSURE

9.1. Release

Rohm and Haas Manufacturing Site

Washings from reaction vessels and piping are transferred to an on-site flocculation pit where the polymer emulsion is flocculated and the majority precipitated. The supernatant water is pumped to a lagoon for evaporation or used for irrigation of on-site vegetation. The final concentration of polymer in the irrigation water is expected to be <1 ppm. The flocculated polymer is transferred to settling pits until it is dry and then disposed to a licensed waste landfill site. It is estimated that up to 2640 kg notified polymer will be lost to washings per annum, with the majority going to landfill.

Minor spills will be taken up by absorbent material and ultimately sent to landfill. An estimated maximum of 176 kg notified polymer will be lost in this manner.

Paint Reformulation Site

Wash water from equipment cleaning is expected to be reused in subsequent batches of paint. Residues and spills will be treated at the on-site effluent treatment plant or taken off-site to a licensed industrial waste contractor, with ultimate disposal in both cases to a licensed waste landfill site. It is estimated that up to 88 kg notified polymer per customer site will be disposed in this manner.

It is estimated that 0.5 % of the notified polymer will remain as dried residue in the import drums (750 kg after year 5), and these drums will be disposed to a licensed drum reconditioner or to a licensed waste landfill site.

Paint Application and Clean-up

Washings from the cleaning of brushes, rollers and spray equipment, are likely to be washed down the drain with copious amounts of water. It is estimated that approximately 1500 kg per annum at maximum introduction volumes of notified polymer will be released to the sewer in

this manner. Disposal of unused paint will depend on the individual but should be done in accordance with local council requirements.

Summary of maximum releases to the environment (Landfill)

Polymer Emulsion Production-cleaning of equipment	2640 kg/annum
Polymer Emulsion Production-spills	176 kg/annum
Paint Formulation-spills	88 kg/annum
Residues in empty drums	750 kg/annum

Summary of maximum releases to the environment (Sewers)

Paint Application and Cleaning	1500 kg/annum

9.2. Fate

The majority of the waste polymer is sent to landfill as a dry solid, from flocculation of waste water and dried residues in import drums. As a dry solid, bound into the paint matrix, the polymer is expected to remain associated with the soils and sediments and would not be expected to leach into the aquatic environment. It is expected to be slowly degraded by biotic and abiotic processes to water and oxides of carbon and nitrogen.

When released to the sewer the low water solubility of the polymer may cause it to partition to the organic phase of sediments. It is expected to be present in concentrations well below its saturation point due to the significant dilution caused by washing of equipment using large volumes of water.

When applied to the metal substrates the paint is expected to dry, forming a solid inert film that will after use share the fate of the substrate and would not present a significant hazard. Any fragments, chips or flakes of the paint will be of little concern as they are expected to be inert.

Bioaccumulation of the polymer is unlikely due to the high molecular weight of the polymer, even before curing (Connell, 1989).

10. EVALUATION OF HEALTH EFFECTS DATA

10.1 Acute Toxicity

The notified polymer was tested in the form of a 44% emulsion in water. The doses presented, refer to the dose of the emulsion, not to the notified polymer. All tests were performed according to OECD/EEC guidelines and in facilities that comply with GLP.

Summary of the acute toxicity of Polymer in Maincote HG-86

Test	*Species*	*Outcome*	*Reference*
acute oral toxicity	rat	LD_{50} > 5000 mg/kg	Rohm & Haas, 2000a
acute dermal toxicity	rat	LD_{50} > 5000 mg/kg	Rohm & Haas, 2000b
skin irritation	rabbit	Slight irritant	Rohm & Haas, 2000c
eye irritation	rabbit	Non-irritant	Rohm & Haas, 2000d

10.1.1 Oral Toxicity (Rohm & Haas, 2000a)

Species/strain:	Rat / Crl:CD BR
Number/sex of animals:	5 males and 5 females
Observation period:	14 days
Method of administration:	5000 mg/kg undiluted test substance, orally by gavage.
Test method:	OECD TG 401 (Limit study)
Mortality:	None
Clinical observations:	No signs of toxicity were observed.
Morphological findings:	No macroscopic findings were observed.
LD_{50}:	> 5000 mg/kg
Result:	The notified chemical was of very low acute oral toxicity in rats.

10.1.2 Dermal Toxicity (Rohm & Haas, 2000b)

Species/strain:	Rat / Crl:CD BR
Number/sex of animals:	5 males and 5 females
Observation period:	14 days
Method of administration:	5000 mg/kg applied undiluted to shaven skin for 24 hours.
Test method:	OECD TG 402 (Limit study)
Mortality:	None
Clinical observations:	No signs of local or systemic toxicity were observed.

Morphological findings: No macroscopic findings were observed.

LD_{50}: > 5000 mg/kg

Result: The notified polymer was of low dermal toxicity in rats.

10.1.4 Skin Irritation (Rohm & Haas, 2000c)

Species/strain: Rabbit / New Zealand White

Number/sex of animals: 6 males

Observation period: 1, 24, 48 and 72 hours, 7and 14 days

Method of administration: 0.5 ml liquid emulsion applied undiluted to shaven skin, under semi-occlusive dressing, for 4 hours.

Test method: OECD TG 404

Draize scores:

Time after treatment (days)	***Animal #***					
	1	***2***	***3***	***4***	***5***	***6***
Erythema						
1	1[a]	1	2	2	1	2
2	1	1	1	2	0	1
3	2	1	1	2	0	1
Oedema						
1	0	0	0	0	0	0
2	0	0	0	1	0	0
3	0	0	0	1	0	0

[a] see Attachment 1 for Draize scales

Comment: In addition to the tabulated scores, very slight erythema (grade 1) was observed in one animal at 1 hour. Very slight or well defined erythema (grade 1 and 2) was noted in two rabbits at 7 days. All irritation was resolved by day 14.
Average score across the 24, 48 and 72 time periods, for erythema = 1.22
Average score across the 24, 48 and 72 time periods, for oedema = 0.11

Result: The notified polymer is a slight irritant to the skin of rabbits.

10.1.5 Eye Irritation (Rohm & Haas, 2000d)

Species/strain:	Rabbit / New Zealand White
Number/sex of animals:	6 males
Observation period:	1, 24, 48 and 72 hours
Method of administration:	0.1 ml undiluted liquid dropped into conjunctival sac of one eye. Eyes washed at 24 hours.
Test method:	OECD TG 405
Draize scores:	Zero scores were recorded in all animals at all times points for corneal, iridial and conjunctival irritation.
Result:	The notified polymer was not irritating to the eyes of rabbits.

Residual monomer levels in the notified polymer are below the relevant concentration cut-offs such that classification as hazardous according to the *Approved Criteria for Classifying Hazardous Substances* (NOHSC 1999), of the emulsion or paint containing the notified polymer, is not necessary.

11. EVALUATION OF ENVIRONMENTAL EFFECTS DATA

Although ecotoxicological data are not required for polymers of low concern with a NAMW > 1000, the notifier has provided the following ecotoxicology studies for a number of aquatic species.

Tests were performed in accordance to EEC/OECD test guidelines at facilities complying with OECD Principles of Good Laboratory Practices. The test substance contained 43.1% notified polymer.

Test	Species	Results (Nominal) mg/L	References
Acute Toxicity (Static Test) (OECD TG 203)	Rainbow Trout *(Oncorhynchus mykiss)*	96 h LC_{50} > 1000 mg/L NOEC = 1000 mg/L	Rhodes, 2000a
Acute Toxicity–Immobilisation (Static Test) (OECD TG 202)	Water Flea (*Daphnia magna*)	48 h EC_{50} > 100 mg/L NOEC = 100 mg/L	Rhodes, 2000b
Growth Inhibition (Static Test) (OECD TG 201)	Green Algae (*Selenastrum capricornutum*)	96 h EC_{50} > 1000 mg/L NOEC = 63 mg/L (based on cell density)	Rhodes, 2000c

Fish *(Oncorhynchus Mykiss)*

Groups of 10 fish were exposed to EXP-3741 PMN (Maincote HG-86) at nominal concentrations of 0 (control), 63, 125, 250 (7 fish), 500 and 1000 mg/L (OECD TG 203, Rhodes 2000a). Each test was replicated twice, and throughout the tests all EXP-3741 PMN solutions appeared milky white, with opacity increasing with test concentration indicating that the samples were oversaturated. No mortalities or sublethal effects were observed at any time during the duration of the tests and the 96 hour LC_{50} for rainbow trout was estimated to be >1000 mg/L total product. Therefore the polymer is non-toxic to this fish species up to the limit of its solubility.

Aquatic Invertebrates *(Daphnia magna)*

The tests on the immobilisation of Daphnia were conducted using a static method (OECD TG 202, Rhodes 2000b). Groups of 10 daphnia neonates were exposed to EXP-3741 PMN at nominal concentrations of 0 (control), 6.3, 13, 25, 50 and 100 mg/L for 48 hours. The 100 mg/L test solution appeared milky white with no visible precipitate or surface film. All other test solutions appeared clear and colourless. No mortalities or sublethal effects were observed at any time during the duration of the test and the 48 hour EC_{50} for daphnia was estimated to be >100 mg/L total product. Therefore the polymer is non-toxic to this species up to the limits of its solubility.

Algae

An algal growth inhibition test was carried out using the species *Selenastrum capricornutum* (OECD TG 201, Rhodes 2000c). Algal cells were exposed for 96 hours under static conditions to EXP-3741 PMN at nominal concentrations of 0 (control), 16, 31, 63, 125, 500 and 1000 mg/L. The 63-1000 mg/L test solutions appeared milky white with opacity increasing with test substance concentration. No visible precipitates or surface films were observed. Each test solution was inoculated with 1.0 mL of inoculum containing approximately 1.0 X 10^6 algal cells. After 96 hours exposure, a statistically significant reduction in cell density and growth rate was observed at concentrations ≥ 125 mg/L. The mean number of cells in the EXP-3741 PMN treatments ranged from a low of 84 X 104 cells/mL (45 % inhibition) at 250 mg/L to a high of 162 X 104 cells/mL (5 % stimulation) at 31 mg/L. Therefore the 96 hour EC 50 was estimated to be >1000 mg/L and the 96 hour no observed effect concentration (NOEC) was 63 mg/L. It is concluded that the notified polymer has some toxic effect to algae.

Conclusion

The ecotoxicity data for EXP-3741 PMN (Maincote HG-86) indicate that based on conditions of the individual tests, the polymer is not toxic to fish or daphnia up to the limit of its solubility, but has some toxic effect to algae.

12. ENVIRONMENTAL RISK ASSSESSMENT

It is estimated that during paint manufacture and application up to 3654 kg/annum notified polymer will be disposed to landfill as solid waste and 1500 kg/annum will be released to the sewer as aqueous waste. All of these solid residues will remain associated with the soil and sediment due to the high molecular weight and the stability of the dry paint matrix. The notified polymer released to the sewer system through washing of painting equipment, is expected to disperse and partition to the organic phase of sediments where it would slowly degrade through biotic and abiotic processes.

A Predicted Environmental Concern (PEC) calculation for the release of the notified polymer to the sewer system with Australia wide distribution is as follows:

Amount released to sewer per year:	1500 kg
Population of Australia:	18 million
Volume of water per person per day:	150 L
Volume of sewage per year:	$18 \text{ X } 10^6 \text{ X } 150 \text{ X } 365$
Concentration in sewage =	1.5 μg/L
Dilution Factor 1:10 =	0.15 μg/L

Based on data provided, the PEC is several orders of magnitude less than that expected to cause adverse effects to aquatic organisms. Therefore the aquatic hazard is predicted to be low.

The majority of the notified polymer will be applied to metal substrates such as wrought iron and galvanised steel. The polymer will share the fate of these substrates. The eventual disposal of the article to landfill or recycling is unlikely to present a hazard to the environment as it will be in a solid matrix that is not expected to biodegrade or leach. During recycling it is expected that the polymer will be destroyed by the high temperatures in the blast furnace and will form water vapour and oxides of carbon and nitrogen. The aqueous waste released to the sewer by the end users will be more widespread and at low levels that should not pose an environmental hazard.

The low environmental exposure of the polymer as a result of the proposed use indicates the overall environmental hazard should be low.

13. HEALTH AND SAFETY RISK ASSESSMENT

13.1 Hazard assessment

The notified polymer when tested as a 44% aqueous emulsion, is of very low and low acute oral and dermal toxicity, respectively. LD_{50} values >5000 mg/kg were obtained in studies conducted with rats. The aqueous emulsion of the notified polymer was not an eye irritant but was a slight skin irritant to rabbits.

No other toxicological studies have been conducted with the notified polymer. However the notified polymer meets the PLC criteria, therefore health hazards are not expected.

The polymer contains constituents that are classified as hazardous according to the *Approved Criteria for Classifying Hazardous Substances* (NOHSC, 1999). However the constituents will be present in the emulsion and paints as residual chemicals at less than 0.1%. Therefore none will be present at a concentration which will require the emulsion or paint containing the notified polymer to be classified as a hazardous substance according to the *Approved Criteria for Classifying Hazardous Substances* (NOHSC, 1999).

The material safety data sheet (MSDS) for the emulsion lists several health effects which are not due to the notified polymer but to other ingredients of the emulsion.

13.2 Occupational health and safety

Polymer in Maincote HD-86 will be imported at 44% as an emulsion, in 200 L steel drums and transported by road to storage sites. Import, transport and storage/warehouse workers will only be exposed in the event of accidental spillage and the risk of adverse health is considered to be negligible.

The notified polymer will be manufactured as a 44% emulsion in sealed reaction vessels. Skin and eye exposure may occur when connecting and disconnecting pipes which carry the emulsion to holding tanks and to the drumming line, or when sampling is being conducted. The most frequent activities are those at the drumming line and the workers involved at this part of the manufacturing process are those who are likely to experience the greatest exposure. However, the drumming line is semi-automated, workers are trained and personal protective equipment (PPE) will be used, all reducing exposure such that risk of adverse health effects is considered to be low.

Imported and manufactured emulsion is used as a constituent in the manufacture of aqueous paints. Skin and eye exposure may occur when connecting and disconnecting pipes carrying the emulsion to mixing vessels, during sampling and during canning of the paint, containing 20-30% notified polymer. Workers involved in the packing line will experience frequent exposure of long duration. However, the packing line is semi-automated, exhaust ventilation is in place and PPE is worn. Overall, risk of adverse health effects is considered to be low.

The finished paint products will be sold for use by professionals and the public. Sales people may experience skin or eye exposure during tinting of paint. Such activities may be frequent but will be of short duration. Taking into account the low reactivity of the polymer, the risk of adverse effects is considered to be low.

Skin and eye exposure may also occur to professionals when applying the final paint product containing the notified polymer by brush. Duration and frequency of exposure to professionals is likely to be high. However, taking into account the low reactivity of the polymer, the risk of adverse effects is considered to be low.

Professionals may also apply the paint via a spray. Inhalation exposure to droplets may occur, however, taking into account the low reactivity of the polymer and the fact that respiratory protection will be used by professionals, the risk of adverse effects is considered to be low.

Conclusion

Exposure is sufficiently controlled at the manufacturing sites of the emulsion and paints, by the use of semi-automated processes, ventilation and PPE such that the risk of adverse effects occurring in industrial workers is considered to be low. PPE is the only form of control for sales people and professional painters. However, as the notified polymer is used at 20-30%, and it is of low reactivity, risk of adverse effects is considered to be low.

Overall, Polymer in Maincote HG-86 is of low concern to human health and no specific risk reduction measures are necessary.

13.3 Public Health

The notified polymer will be available to do-it-yourself painters in the public and it is likely that they will experience dermal contact with the paints they use. However, the finished paint product will contain a lower concentration of the notified polymer (20-30%) than the emulsion (44%) that produced slight dermal irritation. Overall risk to the public from exposure to the notified polymer is considered low.

14. MSDS AND LABEL ASSESSMENT

14.1. MSDS

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, 1994a). It is published here as part of the assessment report. The accuracy of the information on the MSDS remains the responsibility of the applicant.

14.2. Label

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

15. RECOMMENDATIONS

To minimise occupational exposure to Polymer in Maincote HG-86, the following guidelines and precautions should be observed:

- Spillage of the notified chemical should be avoided. Spillages should be cleaned up promptly with absorbents which should then be put into containers for disposal;
- Good personal hygiene should be practised to minimise the potential for ingestion;
- A copy of the MSDS should be easily accessible to employees.

If products containing the notified chemical are hazardous to health in accordance with the NOHSC *Approved Criteria for Classifying Hazardous Substances* (NOHSC, 1999b), workplace practices and control procedures consistent with State and Territory hazardous substances regulations must be in operation.

Guidance in selection of protective eyewear may be obtained from Australian Standard (AS) 1336 (Standards Australia, 1994) and Australian/New Zealand Standard (AS/NZS) 1337 (Standards Australia/Standards New Zealand, 1992); for industrial clothing, guidance may be found in AS 3765.2 (Standards Australia, 1990); for impermeable gloves or mittens, in AS 2161.2 (Standards Australia/ Standards New Zealand, 1998); for occupational footwear, in AS/NZS 2210 (Standards Australia/ Standards New Zealand, 1994a); for respirators, in AS/NZS 1715 (Standards Australia/ Standards New Zealand, 1994b) and AS/NZS 1716 (Standards Australia/ Standards New Zealand, 1994c) and other internationally acceptable standards.

16. REQUIREMENTS FOR SECONDARY NOTIFICATION

Secondary notification may be required if:

(i) any of the circumstances stipulated under subsection 64(2) of the Act arise. If any importer or manufacturer of the notified polymer becomes aware of any of these circumstances, they must notify the Director within 28 days; or

(ii) the notified polymer is introduced in a chemical form that does not meet the PLC criteria.

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