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NATIONAL INDUSTRIAL CHEMICALS NOTIFICATION AND ASSESSMENT SCHEME (NICNAS)

FULL PUBLIC REPORT

Jonrez HC-914

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Director
Chemicals Notification and Assessment

FULL PUBLIC REPORT

Jonrez HC-914

1. APPLICANT AND NOTIFICATION DETAILS

APPLICANT(S)
Westvaco Pacific Pty Ltd (ABN 20 000 533 175) of 50 Dundilla Road, Frenchs Forest NSW 2086.

EXEMPT INFORMATION (SECTION 75 OF THE ACT)
Data items and details claimed exempt from publication:
Chemical name, CAS number, Structural formula, Polymer constituents, Residual monomers and impurities.

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
US EPA (PMN 08/1999), Environment Canada (Schedule 6, 02/2000), EU polymer (all the reactants listed on EINECS).

2. IDENTITY OF CHEMICAL

MARKETING NAME(S)
Jonrez HC-914

MOLECULAR WEIGHT

Number Average Molecular Weight (Mn)	35,740
Weight Average Molecular Weight (Mw)	649,800
Polydispersity Index (Mw/Mn)	18.2
% of Low MW Species < 1000	0.4
% of Low MW Species < 500	0.0

SPECTRAL DATA

METHODS IR and GPC

PLC CRITERIA JUSTIFICATION

Reactive Functional Groups (RFGs)	FGEW = 7148 (35740/5). However, there is no restriction on the number of RFGs in the polymer with NAMW ≥10000.
Charge Density	The notified polymer has low charge density and not anticipated to become cationic in the environmental pH range (pH 4-9).
Elemental Criteria	The notified polymer contains only approved elements.
Degradability	The notified polymer is not biodegradable.
Water Absorbing	The notified polymer is not a water-absorbing polymer.
Residual Monomers	All residual monomers are below the relevant cut-off.
Hazard Category	The notified polymer is not classified as a hazardous substance.

The notified polymer meets the PLC criteria.

3. RELEASE

There are three possible release points of the test substance to the environment.

(1) from spillage of product resulting from the loading of the blending tank;
(2) dust resulting from bags that are fed to the blend tank; and
(3) spills of the formulated inks and blend tank cleaning waters.

Spills during feeding procedures and dust collected by fabric filters will be recycled into subsequent batches or disposed as solid non-hazardous waste. Tank washout waters are recycled as often as possible on subsequent batches. If the solvent rinse cannot be recycled, then it would be disposed by incineration. Also, some of these waters may be washed into drains to a wastewater facility.

Estimated amounts of substance to be released from release points 1, 2 and 3 are 1, <0.5 and <0.1 kg/batch, respectively. The number of batches produced each year are not known; but assuming that a typical batch will be 2,200 kg, and that a total volume of 15,000 kg per annum will be imported, it is anticipated that up to 7 batches per year may be produced. Therefore, it is possible that up to 12 kg may be disposed of in landfills each year.

Losses are also expected from the cleaning of blending tanks, transfer lines and tubing. The notifier states that approximately 7 litres of ink is expected to remain in tanks and tubing, which is equivalent to 7.2 kg of ink, or 1.8 kg of the notified substance. Blend tanks are cleaned with petroleum solvent at the end of each production run, with washings recycled as part of the petroleum solvent for subsequent batches. If the solvent cannot be recycled, incineration is the recommended disposal route.

Losses from Australian made printing works are expected to be minimal. During a press run, ink will appear directly onto the printed paper, and the notified substance will not be present in evaporated solvent fumes. Waste ink will also come from paper printed at the start and finish of printing runs, as start up/finishing wastes, and from paper towels that are used to clean up press rolls and ink troughs at the completion of printing runs.

Waste paper is to be disposed of as solid waste or recycled according to the particular procedures followed at the printing works, while paper towels are to be collected and disposed of by incineration (as will solvents). The notifier states that of 500 kg ink used in a printing run, approximately 10 kg will end up as waste, with 8 kg of ink on waste paper, and 2 kg of ink on paper towels after cleaning. Thus, approximately 2 kg of the notified substance will be either disposed of to landfill or recycled on the waste printed paper, and approximately 0.5 kg will be disposed of by incineration.

The likely behaviour of the polymer during the recycling process is not known. The hydrolysis of ester and anhydride linkages under alkaline conditions will be minimal due to the low solubility of the polymer. The polymer therefore is likely to survive the paper recycling conditions, either remaining bound to the pulp or becoming associated with the sludge. In the latter case, the polymer will arrive in landfill where it can be expected to remain intact, or be destroyed through incineration.

The test substance is imported in 500 kg Super-Sacks. These super-sacks are polyethylene bags with static-charge dissipators woven into walls. The Super-Sacks are typically used five times before they are discarded. When discarded, the Super-Sacks contain <0.25 kg of product. However, the notifier did not indicate how the sacks containing the notified polymer are discarded though landfill may be expected. The intermediate varnish and the finished ink product are contained/transported in metal containers that are resistant to the particular solvent used. These containers range in size from totes to cargo tanks. After use, the containers are typically rinsed with solvents or ink oil. The wash is then collected and used in a subsequent formulation. If the wash cannot be reused, it is typically added to a solvent wash bin and used as needed until it is no longer effective. The reused wash is likely to be incinerated.

4. INTRODUCTION AND USE INFORMATION

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

Year	*1*	*2*	*3*	*4*	*5*
Tonnes	10-15	10-15	10-15	10-15	10-15

USE

Imported for blending with oils to produce a product for use as a component (<25%) of lithographic printing inks which are used in the production of newspapers and magazines.

Ink tanks are hooked directly into the printing press. During a press run, the ink will be supplied to the rollers via an ink trough and finally appear on the printed paper.

5. PHYSICAL AND CHEMICAL PROPERTIES

Appearance at 25°C and 101.3 kPa	Amber resin, either in chips or chunks, with a slight aromatic odour.
Melting Point	~150°C (softening point)
Density	1009 kg/m^3 at 25°C
Water Solubility	Due to its high molecular weight and rosin based hydrocarbon structure, the solubility of the test substance is estimated to be <1 mg/L. Dispersion of the test substance in water is not feasible as it comes in solid chunks or chips. The acid functionality of the test substance is said to be extremely low and pH has no effect on its solubility.
Particle Size	< 1% of particles having an aerodynamic diameter of < 70 µm
Degradation Products	No known reactions or degradation products.
Loss of Monomers, Other Reactants, Additives and Impurities	None.
Explosive Properties	Possibility of dust explosion when a build-up of static charge occurs during pouring of the polymer in the presence of an ignition source. Proper grounding techniques need to be utilised.
Stability and Reactivity	Stable, but slow surface oxidation may occur when stored for extended periods of time. Hazardous polymerisation will not occur.

ADDITIONAL TESTS

Hydrolysis as a Function of pH Not determined

Remarks The notified polymer contains esters and anhydride functionality that could be expected to undergo hydrolysis under extreme pH. However, in the environmental pH range of 4 to 9, significant hydrolysis is unlikely to occur.

Partition Coefficient (n-octanol/water) Not determined

Remarks A close analog HC-901 was analysed using UV/VIS spectroscopy for octanol/water partition coefficient. The lower detection limit for the analysis was <1 ppm. As the sample was not soluble in n-octanol, a partition coefficient could not be determined for HC-901 as would be expected for the test substance (United States Testing Company 1992).

Adsorption/Desorption Not determined

Remarks The notified polymer is expected to associate with and be relatively immobile in soil due to its low water solubility.

Dissociation Constant Not determined

Remarks The notified polymer contains some free carboxylic acids which are expected to have typical acidity.

6. TOXICOLOGICAL INVESTIGATIONS

The following toxicological studies were submitted:

Endpoint and Result	*Assessment Conclusion*
Rat, acute oral LD50 > 2000 mg/kg bw	low toxicity
Rabbit, skin irritation	non-irritating
Rabbit, eye irritation	slightly irritating

On the basis of submitted data, it may be assumed that the notified polymer will not be classified as hazardous in accordance with *Approved Criteria for Classifying Hazardous Substances* (Approved Criteria) in relation to acute oral toxicity and skin and eye irritation.

6.1 Acute Oral Toxicity

TEST SUBSTANCE HCX-7380-19

METHOD EPA 40 CFR 158.340, Guideline Reference OPPTS 870.1100
Species/Strain Rat/Wistar albino
Vehicle Mazola corn oil
Remarks - Method The test article was mixed with corn oil to make dosing by gavage possible. The dose was based on the dry weight of the test article. A single dose was administered orally by syringe and dosing needle at a dose level of 2000 mg/kg.

RESULTS

Group	*Number & Sex of Animals*	*Dose mg/kg bw*	*Mortality*
1	1 M	2000	Died on day one
2	1 M	2000	No death
3	1 M	2000	No death
4	1 M	2000	No death
5	1 M	2000	No death
6	1 F	2000	No death
7	1 F	2000	No death
8	1 F	2000	No death
9	1 F	2000	No death
10	1 F	2000	No death

LD50 > 2000 mg/kg bw
Signs of Toxicity One male died on day one with signs of dyspnea, piloerection, lethargy and ataxia. Instances of emaciation, reduced fecal output and chromadacryorrhea were noted in the surviving animals.
Effects in Organs Necropsy of the animal who died revealed that the death was due to aspiration pneumonitis rather than to an effect of the test chemical. Necropsy results of the surviving animals were normal.

CONCLUSION The notified polymer is of low toxicity via the oral route.

TEST FACILITY MB Research Laboratories (1999a)

6.2 Skin Irritation

TEST SUBSTANCE HCX-7380-19

METHOD EPA 40 CFR 158.340, Guideline Reference OPPTS 870.2500

Species/Strain	Rabbit/New Zealand White
Number of Animals	3
Observation Period	72 hours
Vehicle	
Type of Dressing	Semi-occlusive.
Remarks - Method	The test article was moistened with 0.2 mL of distilled water to enhance contact of the test article with the dose site.

RESULTS

Lesion	*Mean Score* Animal No.*			*Maximum Value*	*Maximum Duration of Any Effect*	*Maximum Value at End of Observation Period*
	1	2	3	0	72 h	0
Erythema/Eschar	0	0	0	0	72 h	0
Oedema	0	0	0	0	72 h	0

*Calculated on the basis of the scores at 24, 48, & 72 hours for EACH animal.

CONCLUSION The notified polymer is non-irritating to skin.

TEST FACILITY MB Research Laboratories (1999b)

6.3 Eye Irritation

TEST SUBSTANCE HCX-7380-19

METHOD EPA 40 CFR 158.340, Guideline Reference OPPTS 870.2400

Species/Strain	Rabbit/New Zealand White
Number of Animals	3
Observation Period	72 hours
Remarks - Method	The test article (0.1 ml equivalent 65 mg) was placed by syringe into the conjunctival sac which was formed by gently pulling the lower eyelid away from the eye.

RESULTS

Lesion	*Mean Score* Animal No.*			*Maximum Value*	*Maximum Duration of Any Effect*	*Maximum Value at End of Observation Period*
	1	*2*	*3*			
Conjunctiva: redness	0.66	0.33	0.66	2	1 h	0
Conjunctiva: chemosis	0	0	0.33	2	1 h	0
Conjunctiva: discharge	0.33	0	0.66	2	24 h	0
Corneal opacity	0	0	0	0	72 h	0
Iridial inflammation	0	0	0	0	72 h	0

*Calculated on the basis of the scores at 24, 48, & 72 hours for EACH animal.

CONCLUSION The notified polymer is slightly irritating to eyes.

TEST FACILITY MB Research Laboratories (1999c)

7. ENVIRONMENTAL INVESTIGATIONS

The following ecotoxicological studies were submitted:

7.1 Acute toxicity to fish

TEST SUBSTANCE HCX-7380-19

METHOD OECD TG 203, Fish, Acute Toxicity Test - Static
Species Fathead minnow, *Pimephales promelas*
Exposure Period 96 h exposure
Auxiliary Solvent DMF
Water Hardness 96 mg $CaCO_3$/L
Analytical Monitoring Mortality and signs of stress were used in the response monitoring
Remarks – Method Test concentrations were prepared by the addition of a test substance in DMF stock solution to diluent water in test vessels. All test concentrations exceeded the aqueous solubility of the test substance in diluent water as undissolved substance was observed in each test vessel. Therefore test concentration and results may be exaggerated and only nominal concentrations are used in the calculations.

RESULTS

Concentration mg/L		*Number of Fish*	*Mortality*				
Nominal	*Actual*		*1 h*	*24 h*	*48 h*	*72 h*	*96 h*
0	ND*	10	0	0	0	0	0
6.25	ND	10	0	0	0	0	0
12.5	ND	10	0	0	0	0	0
25.0	ND	10	0	5	5	5	5
50.0	ND	10	0	30	85	100	-
100.0	ND	10	0	100	-	-	-

ND denotes Not Determined

LC50 54.0 mg/L at 24 hours.
38.2 mg/L at 48 hours.
33.8 mg/L at 72 hours.
33.8 mg/L at 96 hours.
NOEC (or LOEC) 12.5 mg/L at 96 hours.
Remarks – Results The 96 h LC50 for the Fathead minnow, *Pimephales promelas* was determined to be 33.8 mg/L using the Binomial Method. The NOEC was determined to be 12.5 mg/L. This result should be treated with caution as levels were well above the water solubility and the exact level of exposure to fish is unclear. During testing some organisms exhibit sub-lethal effects observed as being spasmodic, surfacing, labored respiration, swimming inverted and/or ceased swimming. These responses can possibly be attributed to the physical effects of the suspended substance being trapped in the respiratory system.

CONCLUSION The results indicate that the test substance is slightly toxic to Fathead minnow, *Pimephales promelas* up to the level of its water solubility.

TEST FACILITY Aqua Survey, Inc. (1999a).

7.2 Acute/chronic toxicity to aquatic invertebrates

TEST SUBSTANCE	HCX-7380-19
METHOD	OECD TG 202 Daphnia sp. Acute Immobilisation Test and Mortality Test - Static
Species	*Daphnia magna*
Exposure Period	48 hours
Auxiliary Solvent	None
Water Hardness	88 mg $CaCO_3$/L
Analytical Monitoring	Mortality/immobilisation
Remarks - Method	Test solutions were made up as above and again all test concentrations exceeded the aqueous solubility of the test substance in diluent water as undissolved test substance was observed at each concentration throughout the test period.

RESULTS

Concentration mg/L		*Number of D. magna*	*Number Immobilised/dead*	
Nominal	*Actual*		*24 h*	*48 h*
0	ND	10	0	0
6.25	ND	10	0	0
12.5	ND	10	0	15
25	ND	10	10	25
50	ND	10	5	20
100	ND	10	0	55

Acute NOEC	6.25 mg/L at 48 hours
Remarks - Results	The 48-h EC50 value for the Cladoceran, *Daphnia magna* was calculated to be 99.3 mg/L using the Probit Method. The acute NOEC was determined to be 6.25 mg/L. This result should be treated with caution as levels were well above the water solubility and the exact level of exposure to the species is unclear. During testing some organisms exhibited sub-lethal effects observed as signs of stress. These responses could be attributed to the physical effects of the suspended substance being trapped in the respiratory system causing the species to suffocate.
CONCLUSION	The results indicate that the test substance is slightly toxic to *Daphnia magna* up to the level of its water solubility
TEST FACILITY	Aqua Survey, Inc. (1999b).

7.3 Inherent biodegradability

TEST SUBSTANCE	HCX-7380-19
METHOD	Modified soil inherent biodegradability test in accordance with SGS USTC procedures and US EPA methodologies
Inoculum	10% (by weight) of natural soil
Exposure Period	56 days
Auxiliary Solvent	None
Analytical Monitoring	Captured CO_2 was titrated with HCl at roughly 2-4 day interval until test termination
Remarks - Method	Test concentrations used are 250 mg and 500 mg (as carbon) of the test substance. The positive control consists of approximately 250 mg (as carbon) of a mixture of glycerin (0.075 mL) and powdered cellulose (0.5 g). The base test soil was inoculated with approximately 10% (by weight) of natural soil and composed of 10% Canadian sphagnum peat moss, 20% EPK kaolin clay powder, and 70% silica sand. The soil was supplemented with calcium carbonate to adjust soil pH to 7.0. The initial soil organic carbon content was 3-6% and the soil was adjusted to approximately 70% moisture content. The test was conducted in a modified Bartha-Pramer

soil biometer at 20-25°C.

RESULTS

Test substance		*Reference Substance*	
Weeks	*% degradation*	*weeks*	*% degradation*
At 250 mg (as carbon) of the test substance			
1	0.4	1	10.2
2	0.4	2	17.8
4	0.8	4	24.0
6	1.1	6	30.0
8	1.4	8	33.1
At 500 mg (as carbon) of the test substance			
1	0.2		
2	0.2		
4	0.7		
6	0.9		
8	1.1		

Remarks - Results: The notified polymer degraded approximately 1.3% as measured by CO_2 evolution in the 56 day soil test. The reference substance (glycerin/cellulose) degraded more than 33.1%, validating the test system.

CONCLUSION: The notified polymer did not satisfy the criteria for inherent biodegradability as outlined in the test standard, US EPA OPPTS 835-3300, "Soil Biodegradation".

TEST FACILITY: SGS US Testing Company Inc. (1999).

8. RISK ASSESSMENT

8.1 Environment

8.1.1 Environment – exposure assessment

Disposal of the notified polymer to landfill is unlikely to present a hazard to the environment, as it unlikely that either the printing varnish or final ink form will be soluble, and should not leach. Biodegradation to a more soluble form is also unlikely.

The low total amount of the notified polymer to be disposed of directly to landfill (approximately 7 kg per annum) is expected to occur in a dispersed manner, thereby minimising the hazard associated with this means of disposal.

The main environmental hazard would arise through spillage in transport accidents that may release quantities of the polymer to drains or waterways. However, the polymer is expected to sink to sediments and remain immobile pending collection and disposal, due to the expected low solubility of the substance. Recycling of spilt material will reduce the losses due to spillage. The MSDS contains adequate directions for dealing with such spills.

The polymer is likely to persist in sludge resulting from paper recycling conditions or to remain bound to the pulp. Should such wastes be placed in landfill, the polymer is not expected to leach due to its low solubility. Alternatively, incineration may be used to dispose of these wastes.

The notifier did not provide information concerning the disposal of the Super Sacks which contain residual amount of the notified polymer (<0.25 kg per sack) and the disposal of the reused wash from rinsing of the metal containers that contains the intermediate varnish and finished ink products. It is likely that the used Super Sacks would be landfilled and the reused wash, incinerated.

8.1.2 Environment – hazard assessment

The notified polymer meets the PLC criteria and can therefore be considered to be of low hazard. However, tests provided for fish and daphnia indicate slight toxicity which may be the result of physical effects from undissolved materials.

8.1.3 Environment – risk characterisation

The notified polymer is not expected to biodegrade, and due to its high molecular weight should not bioaccumulate. A soil biodegradation test via the evaluation of evolved CO_2 was conducted on the test substance. The results did not satisfy the degradation criteria for inherent biodegradability. This is not unexpected due to the high molecular weight and its low water solubility. As the notified polymer is expected to be insoluble, when placed in landfill it is not expected to leach.

Although the aquatic toxicity test for *Pimephales promelas* and *Daphnia magna* indicate a slight toxicity with a 96 h LC50 of 33.8 mg/L and 48 h EC50 of 99 mg/L respectively, there is doubt on the validity of the results as the notified polymer was not completely soluble possibly resulting in suspended product being trapped in the respiratory system of the tested species causing them to suffocate. Should a spill of the polymer in varnish form occur to waterways or drains, it is anticipated that it will settle onto sediments allowing it to be removed for disposal. Spilt inks should be collected for either recycling or disposal.

The low environmental exposure to the polymer as a result of the proposed use, together with the expected low environmental toxicity indicate that the overall environmental risk should be low.

8.2 Human Health

8.2.1 Occupational Health and Safety – exposure assessment

The main categories of workers likely to be exposed to the notified polymer are those involved in formulation of ink and end use.

Dermal and ocular exposure to 100% notified polymer may occur during certain formulation processes. However, exposure to significant amounts of the notified polymer is limited because of the engineering controls such as blending in a closed tank and personal protective equipment worn by workers.

During enduse, exposure to 25% polymer in ink may occur when connecting in tanks to the printing machine, and when applying ink on the printed paper. This procedure is expected to be automated and under local exhaust ventilation.

Small amounts of ink containing the notified polymer that may be released when ink is squeezed directly onto the printed paper will be carried with solvent fumes and collected by scrubber fans. Three forms of exposure are likely during the use of the notified polymer: dust resulting from emptying of bags during feeding the polymer; spillage of product that may occur during loading of the blending tank; and spills of formulated inks and blend tank cleaning waters. The dust collected by fabric filters and spills during feeding procedures are recycled into subsequent batches, or sent to landfill. After application and once dried, the ink containing the notified polymer is cured into an inert matrix. Hence, exposure from the printing works is expected to be minimal.

The notified polymer should be stored and used in areas devoid of open flames, ignition sources and electrical discharges to prevent any possible dust explosions which might occur due to build up of static charges.

Exposure of workers to the polymer during wharf handling, transportation and storage is expected to be minimal other than in the event of a spill. Packaging of formulated ink will be automated.

8.2.2 Public Health – exposure assessment

Although there is limited potential for public exposure to the notified polymer arising from ink formulation and printing processes, there will be widespread public contact with the notified polymer on the surface of the printed paper, however its adhesion to the substrate and physico-chemical properties will be sufficient to preclude absorption across the skin or other biological membranes. Based on its use pattern and physico-chemical characteristics, it is considered that the notified polymer will not pose a significant hazard to public health.

8.2.3 Human Health – hazard assessment

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

The notified polymer has a NAMW > 1000 and, as such, is not expected to cross biological membranes. Considering the above and the low monomer levels of the notified polymer, any adverse health effects would not be expected to result from exposure to the polymer. However, based on toxicological data, the notified polymer may be a slight eye irritant but would not be classified as hazardous according to the Approved Criteria.

8.2.4 Occupational Health and Safety – risk characterisation

The OHS risk presented by the notified polymer is expected to be low due to its expected low toxicity. Given the slight eye irritant properties, workers should wear protective goggles or safety glasses. 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.

8.2.5 Public Health – risk characterisation

The notified polymer will not be available to the public. Members of the public may make dermal contact with products containing the notified polymer from handling printed paper. However, the risk to public health will be low because the notified polymer is bound within a matrix and unlikely to be bioavailable.

Therefore, the risk to public from exposure to the notified polymer is considered low.

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

9.1 Environmental risk assessment

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

9.2 Human health risk assessment

9.2.1 Occupational health and safety

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

9.2.2 Public health

There is Low Concern to public health when used in the manner described.

10. RECOMMENDATIONS

CONTROL MEASURES

Occupational Health and Safety

- No specific engineering controls or work practices 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. When handling the product containing HC-916, protective goggles or safety glasses should be used to protect against unforseen circumstances.
  - 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 Jonrez HC-914 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 pour leftover product down the drain. Waste generated during press run should be landfilled or incinerated accordingly. Disposal of empty steel containers via steel can recycling programs. Spilt material should be recycled.*

Disposal

- The notified polymer should be disposed of in landfill or be destroyed through incineration

Storage

- The following precautions should be taken by regarding storage of the notified polymer:

  – *The preferred method of storage is in sealed bags in cool surroundings (<26°C). The sealed bags and cool surroundings reduce the rate of surface oxidation. Keep away from oxidising agents, ignition sources, combustible materials and heat.*

Emergency procedures

- Spills/release of the notified polymer should be handled by sweeping up material. Avoid producing dust cloud. Re-use or place in approved disposal containers. Do not flush to sewer. Collect wash water for disposal.

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.

No additional secondary notification conditions are stipulated.

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