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NATIONAL INDUSTRIAL CHEMICALS NOTIFICATION AND ASSESSMENT SCHEME (NICNAS)

FULL PUBLIC REPORT

Component of ADDUCT LBK 3542

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 Water Resources.

For the purposes of subsection 78(1) of the Act, this Full Public Report may be inspected at our NICNAS office by appointment only at 334-336 Illawarra Road, Marrickville NSW 2204.

This Full Public Report is also available for viewing and downloading from the NICNAS website or available on request, free of charge, by contacting NICNAS. For requests and enquiries please contact the NICNAS Administration Coordinator at:

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Director
NICNAS

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1. APPLICANT AND NOTIFICATION DETAILS

APPLICANT(S)
Huntsman Advanced Materials (Australia) Pty Ltd (ABN: 93 091 627 879)
Gate 3, Ballarat Road,
Deer Park, Victoria 3023

NOTIFICATION CATEGORY
Limited: Polymer with NAMW ≥ 1000 (greater than 1 tonne per year).

EXEMPT INFORMATION (SECTION 75 OF THE ACT)
Data items and details claimed exempt from publication:

- Chemical name
- Other name
- Molecular weight
- Molecular and structural formulae
- Spectral data
- CAS Number
- Monomer identity and composition
- Residual monomers
- Identity of customer(s)

VARIATION OF DATA REQUIREMENTS (SECTION 24 OF THE ACT)
Variation to the schedule of data requirements is claimed as follows:
Physical and Chemical Data

- Vapour Pressure
- Hydrolysis as a Function of pH
- Partition Coefficient (n-octanol/water)
- Adsorption/Desorption
- Dissociation Constant
- Flash point
- Flammability limits
- Autoignition temperature
- Explosive properties

PREVIOUS NOTIFICATION IN AUSTRALIA BY APPLICANT(S)
None

NOTIFICATION IN OTHER COUNTRIES
None

2. IDENTITY OF CHEMICAL

MARKETING NAME(S)
Adduct LBK 3542

% of Low MW Species < 1000	< 25
% of Low MW Species < 500	< 5

METHODS OF DETECTION AND DETERMINATION

Remarks Infra red spectra were provided.

3. COMPOSITION

DEGREE OF PURITY
> 95%

DEGRADATION PRODUCTS
Hazardous decomposition products are oxides of carbon and nitrogen; burning produces obnoxious and toxic fumes.

LOSS OF MONOMERS, OTHER REACTANTS, ADDITIVES, IMPURITIES
Can occur while product is in liquid form. Once hardened no loss is expected.

4. INTRODUCTION AND USE INFORMATION

MODE OF INTRODUCTION OF NOTIFIED CHEMICAL (100%) OVER NEXT 5 YEARS
The notified polymer (Adduct LBK 3542) will be manufactured overseas and supplied into Australia as a formulated product in 200 kg steel drums. The formulated product contains 44% of Adduct LBK 3542 and will be repackaged in Australia.

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

Year	*1*	*2*	*3*	*4*	*5*
Tonnes	10-30	10-30	10-30	10-30	10-30

USE
The notified polymer will be used as a component of a two-part epoxy resin coating system.

5. PROCESS AND RELEASE INFORMATION

5.1. Distribution, transport and storage

PORT OF ENTRY
Melbourne

IDENTITY OF MANUFACTURER/RECIPIENTS
The finished product containing Adduct LBK 3542 will be sold only to industrial customers who may repack the product into smaller containers.

TRANSPORTATION AND PACKAGING
The finished product containing the notified polymer will be imported in 200 L drums. The product containing the notified polymer will be transported by road from the wharf to the ABX warehouse in Tullamarine, Victoria where it will be stored and then transported to customer(s) sites.

5.2. Operation description

The product will be imported from overseas. The stock will be imported into Australia, stored in the warehouse in Tullamarine, Victoria and transported to the customer(s) site. The notified polymer will be stored and distributed in the original, sealed import containers.

The finished product containing the notified polymer will be transferred from the 200 L drums to smaller containers. Customers will in almost all cases re-pack the product into smaller packs: 20 L pails, 5 and 10 L cans and re-label before supplying to the professional market place. Decanting to smaller containers will be done by pumps and filling machines. The procedure will be conducted in dedicated areas, which will be well ventilated and bunded to prevent spread of any spills. Some of the larger customers will only re-label the drum. Spillage may occur during this process.

Applicators will open the pails/cans and manually pour the required amount into a bucket and then add the epoxy component. The mixing equipment is mainly very basic. The epoxy resin and hardener are added in correct proportions into a pail and mixed with a paddle mixer attached to an electric drill, followed by dilution with water using the same mixing regimen. In some cases involving larger jobs customers may use mix/metering equipment mechanically measuring out the resin and hardener in the correct ratio.

The two components must be thoroughly mixed. The mixing ratio of epoxy resin: Adduct LBK 3542 depends on the epoxy resin used. The following recommended mix ratios apply:

1. Araldite GY 776: Hardener containing Adduct LBK 3542 is 100:140 parts by weight
2. Araldite PZ 756/67: Hardener containing Adduct LBK 3542 is 100:94 parts by weight

Deviations from this of up to 5-10% can be tolerated with the diluent being water, preferably deionised, directly before application. Usually the dilution is carried out on the resin / hardener mixture rather than diluting them individually and then mixing them.

From the above recommended mixing ratios the final concentration of notified polymer in the dispersion coating will range from 20% to 24% approximately.

The two-component dispersion mixture may be applied by fine or coarse brush, a roller, doctor blade or a spray gun. Brush application is recommended for application to damp surfaces. The degree of waste generated will depend on the method of application. Spraying would generate the greatest amount of waste. It is anticipated that waste will be 30% by spray on a calm day. Spraying would not occur on a windy day. The majority of the spray waste is expected to be collected by sheets put up around the area to be sprayed. In general from previous experience with similar products most of the product is applied by brushing or rolling.

The pot life of dispersion coatings made with finished product containing the notified polymer is limited to 1 to 2 hours (loss of gloss finish). An increase in viscosity occurs later.

Application equipment can be cleaned with slightly acidic water containing surface-active agents. Final rinsing with water compatible solvent e.g. 2-propanol will remove any partly reacted binder.

5.3. Occupational exposure

Number and Category of Workers

Category of Worker	*Number*	*Exposure Duration*	*Exposure Frequency*
ABX Logistics			
Transport and Storage	6-8	1-2 hours/week	50 days/year
Customer Site			
Repackaging and relabelling	30-50	4-8 hours/week	50 days/year
Applicator Site			
Application workers	>1000	8 hours/day	

Exposure Details

Transport and Storage

Exposure to the notified polymer is unlikely during transportation and storage. Exposure may result in the case of an accidental spill or leak in the pails or drums. No specific precautions are required. Gloves, coveralls and goggles are available if required.

Repackaging and relabelling

Workers may be exposed to notified polymer via dermal and ocular exposure due to spills and leaks, during repackaging and relabelling. Workers will wear coveralls, goggles and impervious gloves. Aerosols may be released during repackaging and relabelling, but inhalation exposure is likely to be low due to the local exhaust ventilation system and the closure of the system if high speed stirring occurs. Where ventilation is inadequate a respirator will be worn.

Coating applications
Workers exposed during end use of the formulated coatings will mostly consist of industrial personnel preparing and applying the formulated coatings to surfaces, and cleaning equipment after use.

The final concentration of the notified polymer in coatings will be < 25%, reducing the potential for worker exposure to the notified polymer. Dermal exposure is possible during preparation of the coating, which involves stirring, transfer and dilution steps.

Spraying
Aerosols may be formed during spray application and therefore inhalation exposure may be possible. To minimise exposure during end use, the coating is diluted and applied in a well ventilated, down draft spray booth with an effective fume extraction system. Workers also wear gloves, safety glasses and respirator if local exhaust ventilation is inadequate. For manual application by spraying the applicator will wear appropriate personal protective equipment including a respirator. Any overspray will be collected by sheets put up around the area to be sprayed and disposed of when dry.

Spray coating may be carried out without the full range of controls mentioned above, increasing exposure. Worker exposure to the notified polymer in dried coatings is likely to be minimal, as the polymer will be encapsulated as part of the cured coating film.

Roller and Brush application
For roller and brush application dermal exposure may occur as a result of drips or spills during manual application. This exposure will be minimised by the use of appropriate personal protective equipment including gloves, coveralls and safety glasses. For automatic application using roller and brush the only exposure will result from drips or spills. There is not expected to be any inhalation exposure as the application occurs in a ventilated area and the polymer is not highly volatile.

5.4. Release

RELEASE OF CHEMICAL AT SITE
The notified polymer will be imported from overseas. However, should the finished product containing the notified polymer stored in the ABX warehouse in Tullamarine, Victoria, be released to the environment due to accidental spill or damaged drum, this would not be expected to be significant. The quantities likely to be stored at any one time will be relatively small (typically <5 tonnes). The ABX warehouse is fully compliant with all current government regulations relevant to the storage of hazardous chemicals.

Release of the notified polymer to the environment is expected to be minimal. The potential release points to the environment are:
1. In the case of a spill or damage to the container in which the notified polymer supplied. It is envisaged that supply will be in 200 L drums. In this scenario, the amount of finished product containing the notified polymer that would be spilt would be ca 215 kg, which translates to ca 95 kg per annum of the notified polymer. The notified polymer will never be released in isolation at customer site.
2. Spillage during transfer from the containers in which the product is supplied into smaller containers. This process is conducted in a well-controlled environment, hence spillage would be expected to be minimal. It is expected to be less than 300 kg per annum.
3. Residual material in the containers. This product is of relatively low viscosity, hence it is reasonable to assume that > 98% of the contents of each container will be consumed. For the 200 L drums, < 2-3 kg notified polymer will remain. This would be cured prior to disposal to licensed solid waste sites.

The release of the finished product containing the notified polymer to the atmosphere is not likely to be of any significance due to the adduct having a high molecular weight hence a low vapour pressure. It is used at ambient temperatures only. It is a reactive species that will react with the epoxy resin component to form an inert polymeric material.

RELEASE OF CHEMICAL FROM USE
The notified polymer will present the most significant opportunities for release to the environment during the mixing phase. A typical mix of epoxy resin and hardener would be of the order of 20 kg, which translates to 13 kg of the resin and 7 kg of hardener. In the 7 kg of formulated hardener, there is

ca 4.2 kg of the notified polymer. However, once the resin and hardener have been mixed, the curing reaction occurs which results in the formation of an inert polymeric material. It is usual for waste cured material or residue in the 5 L and 10 L cans and 20 L pails, to be disposed of as industrial waste at an approved land-fill site.

5.5. Disposal

Waste material resulting from the use of the notified polymer on site is usually disposed of as industrial waste. The finished product containing the notified polymer is mixed with epoxy resin and any remaining mixture at the end of the day is allowed to solidify prior to disposal. Wastage by the applicators is usually < 5% due to the nature of the work done and the high cost of the products, which dictates maximum utilisation of the products.

5.6. Public exposure

The notified polymer or products containing it will not be sold to the public. It will only be used for industrial applications. The public will not come into contact with finished product containing Adduct LBK 3542, nor will it come into contact with the surfaces coated with the dispersion coatings in the ordinary course of events.

6. PHYSICAL AND CHEMICAL PROPERTIES

Appearance at 20°C and 101.3 kPa Slightly hazy colloidal solution.

Melting Point/Freezing Point Not applicable.

Remarks The imported product containing the notified polymer is in liquid form.

Boiling Point Not determined. Expected to be > 100°C at 101.3 kPa.

Remarks This value is for the water component

Density 1.050 kg/m^3 at 20°C

METHOD ISO 1675
Remarks Information cited in "Provisional Data Sheet".

Vapour Pressure Not determined

Remarks The relatively high molecular weight of the polymer suggests that it would have a low vapour pressure.

Water Solubility >440 g/L

Remarks The product is formulated in water at a 44% concentration.

Hydrolysis as a Function of pH Not determined

Remarks The polymer contains no hydrolysable groups and is expected to be stable in the environmental pH range (4 - 9).

Partition Coefficient (n-octanol/water) Not determined

Remarks It is not practical to determine the Log Kow for a polymer of high molecular weight. The notified polymer is soluble in water and is expected to favour the aqueous phase.

Adsorption/Desorption Not determined

Remarks The polymer is soluble in water and is expected to be mobile in the environment. However, mobility may be reduced due to the association of the positive charges in the polymer with the surface of negatively charged clay minerals and the carboxylate groups of humic material in soil.

Dissociation Constant Not determined

Remarks pKa value approximately 9.0 – 11.0

Particle Size Not applicable.

Remarks Liquid at room temperature.

Flash Point >100ºC

Remarks Flash Point is estimated based on the Flash Points of the components of the notified polymer.

Flammability Limits Not determined.

Remarks Not expected to be flammable. The notified polymer is designed to be used in water-based systems which provides further indication that these hazards will not be present.

Autoignition Temperature Not determined.

Remarks Not expected to auto-ignite under normal conditions. The notified polymer is designed to be used in water-based systems which provides further indication that these hazards will not be present.

Explosive Properties Not determined.

Remarks Not expected to be explosive. The notified polymer is designed to be used in water-based systems which provides further indication that these hazards will not be present.

Reactivity

Remarks Avoid static electricity discharge. Avoid contact with strong acids, strong bases and strong oxidising agents. Decomposition products are carbon oxides. Burning produces obnoxious and toxic fumes. Product will not decompose explosively.

Viscosity 2000 – 6000 cP at 25ºC

METHOD OECD TG 114 Viscosity of Liquids.
Remarks This is the viscosity of the final formulated notified polymer.

7. TOXICOLOGICAL INVESTIGATIONS

No toxicity data were submitted.

8. ENVIRONMENT

8.1. Environmental fate

No environmental fate data were submitted

9. RISK ASSESSMENT

9.1. Environment

9.1.1. Environment – exposure assessment

The polymer will be applied to surfaces by brush, roller, doctor blade or spray gun. Losses will depend on the method of application. Up to 30% may be lost from spraying, which is expected to be collected by sheets etc. There may be losses (up to 5% or 1.5 tonnes per annum) from the washing of brushes and rollers which is likely to enter the sewer and despite the expected water solubility they should partition to sludge.

The majority of the notified polymer will be cured on the surface of the articles to which it has been applied, forming a high molecular weight and stable film. As the coating degrades over time, any fragments, chips and flakes of the coating are expected to be inert. The surfaces coated with the polymer are likely to be either recycled or be placed into landfill at the end of their useful life (5-20 years). When recycled the polymer would be destroyed in furnaces and converted to water vapour and oxides of carbon and nitrogen.

Application waste from cleaning of application equipment will be disposed of to landfill within sludge from the onsite wastewater treatment plant. The notified polymer that is disposed of to landfill is expected to degrade via biotic and abiotic process over time to form simple organic compounds.

9.1.2. Environment – effects assessment

No ecotoxicity data were provided. The notified polymer contains amine functionalities which may become cationic and thus exhibit toxicity to aquatic organisms.

9.1.3. Environment – risk characterisation

The notified polymer will not be manufactured in Australia. There will be no local reformulation. The product may be decanted into smaller containers by customers and supplied for end use.

Release to the environment may occur in case of an accidental spill or damage to the 200 L capacity drums in which the Hardener containing the notified polymer is supplied. Also release may occur during decanting to smaller containers at the customer sites. This would be minimised by performing the procedure in bunded areas.

The notified polymer will be used only by professional applicators who are trained in the proper disposal methods for these types of products. Furthermore, the product is a two-part system, , in which curing will occur once the two parts are added together and mixed. Less than 1% of the imported volume of the notified polymer in the uncured material is expected to be washed off into the sewer.

Some residual material will remain in the imported 200 L containers. This product is of relatively low viscosity, hence it is reasonable to assume that > 98% of the contents of each container will be consumed. For the 200 L drums, up to 4 kg of product (or approximately 2-3 kg of the notified polymer) will remain as residue in the empty container. The residue is mixed with epoxy resin and allowed to solidify prior to disposal of the container. A licensed waste disposal contractor disposes of the inert polymeric material.

No aquatic exposure is anticipated during normal use of the polymer. During the application of the coating containing the notified polymer wastes could be generated from over spray or washing of brushes and rollers. It is expected that the majority of this waste will be disposed of in approved landfills as inert solid waste, with a small proportion being incinerated. In landfill, the solid wastes should be contained and not pose a significant risk to the environment. Any waste that reaches sewer such as from washing of brushes will be in the cured form, which is expected to be less toxic and will partition to sludge.

The majority of the notified polymer will be incorporated into the coatings that will be applied to surfaces and cured in an inert matrix, which may be painted over. As such, the polymer will share the fate of the surfaces to which it has been applied at the end of their useful life (5-20 years). Hence, it will either be disposed of to landfill or destroyed by incineration during recycling.

9.2. Human health

9.2.1. Occupational health and safety – exposure assessment

During transport and storage, worker exposure to products containing the notified polymer, is expected to be very low, and would only occur if accidental spillage of the materials occurred.

There is potential for worker exposure to the notified polymer during the repacking process. Dermal/ocular exposure is the most likely, because the polymer would have a low vapour pressure and no aerosols are expected to be generated during the repacking process. The engineering and PPE controls in place should be sufficient to minimise exposure.

During processing of ADDUCT LBK 3542 into paint formulations, especially when transferring liquids, there is potential for dermal/ocular exposure of workers. However standard engineering controls for formulation, eg enclosed mixing vessels fitted with local exhaust ventilation, would limit exposure. Exposure at this stage could occur to ADDUCT LBK 3542 containing 44% of the notified polymer, or to paint formulations containing < 25% of the notified polymer. Exposure to the paint formulations may also occur during cleaning and maintenance of equipment but packing off of the paint should be automated.

Potential for exposure occurs at the end-use stage, when paint formulations containing < 25% of the notified polymer are prepared for application and sprayed onto substrate. Dermal/ocular exposure is likely during cleaning of the equipment and during the small-scale preparation for spraying, which may involve stirring the paint, diluting with water, and transfer to the spray gun. During the spraying process itself, inhalation and possibly ingestion exposure is possible, because aerosols containing the notified polymer would be formed during atomisation of the paint. The extent of dermal/ocular and inhalation exposure will depend on the controls in place, including isolation and engineering measures. The facilities where the resin coating is applied may vary in the type and effectiveness of spray booths or other equipment. While much of the spray painting may be carried out with a high level of controls, the possibility of less effective control measures and therefore higher worker exposure cannot be ruled out.

However, the majority of the paint products will be applied by brush or roller and exposure during these application procedures would be primarily dermal.

Worker exposure to the notified polymer in dried paints is likely to be minimal, as the polymer will be encapsulated as part of the cured paint film.

9.2.2. Public health – exposure assessment

Once the resin coating containing the notified polymer is applied to the substrate, the notified polymer is bound in an insoluble polymeric matrix and is not bioavailable. Therefore no significant exposure to the public is expected.

9.2.3. Human health – effects assessment

No toxicity data were submitted.

The high molecular weight of the notified polymer should preclude absorption across biological membranes and systemic toxicity is not expected. As no toxicological data have been submitted the notified polymer cannot be classified under the *Approved Criteria for Classifying Hazardous Substances* (NOHSC, 2004).

However, the notified polymer contains a significant amount of low MW species and it contains a high concern functional group, which is reactive and of concern to human health because of its potential for irritating properties.

9.2.4. Occupational health and safety – risk characterisation

The health effects of the notified polymer have not been characterised. Its absorption into the body is expected to be low because of its high molecular weight. Irritating potential is indicated by a significant level of low molecular weight species and a reactive functional group (RFG) of high concern due to its irritating and possibly sensitising potential. The potential for irritation or sensitisation is mitigated by the fact that the level of species with molecular weight < 500 is < 5% and not all molecules would contain the RFG. In addition the notified polymer is introduced at 44%. Taking these considerations into account, the potential for sensitisation is considered to be low solely on the basis of low intrinsic hazard.

At the repacking site, engineering and PPE controls, in conjunction with appropriate safe work practices, are expected to limit dermal/ocular exposure.

During formulation, exposure will be controlled by engineering controls such as enclosed tanks and local exhaust ventilation to extract aerosols. Some exposure to spillage is possible during transfer of the polymer dispersion to the mixing vessel and during packing of the paint into drums. This exposure is expected to be intermittent and controlled by adequate PPE. Exposure during quality control testing, cleaning and maintenance of machinery should be lower than for process work. Taken together, the low intrinsic hazard of the notified polymer coupled with adequate exposure controls suggests the risk of adverse health effects resulting from formulation processes will be low.

In end use, especially spraying, both engineering controls such as spray booths and full personal protective equipment are expected to be used to control exposure. Any health risks would be further reduced by spraying being carried out according to the *National Guidance Material for Spray Painting* (NOHSC, 1999).

When the coating is applied by brush or roller, PPE is available to reduce dermal exposure.

Overall the health risks to workers involved in formulation and end use of resin coating containing the notified polymer are considered to be low given the low intrinsic hazard of the notified polymer, the engineering controls in place to control exposure and the use of PPE.

9.2.5. Public health – risk characterisation

Once the paint containing the notified polymer is applied to the substrate, the notified polymer is bound in an insoluble polymeric matrix and is not bioavailable. Therefore no significant exposure to the public is expected.

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

10.1. Hazard classification

Based on the available data the notified polymer cannot be classified as hazardous under the *Approved Criteria for Classifying Hazardous Substances*[NOHSC:1008(2004)].

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.

Based on available data it is not possible to categorise the notified polymer according to the GHS for either health or environmental effects.

10.2. Environmental risk assessment

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

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 use in the proposed manner.

11. MATERIAL SAFETY DATA SHEET

11.1. Material Safety Data Sheet

The MSDS of products containing the notified polymer provided by the notifier was in accordance with the *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 products containing the notified polymer provided by the notifier was in accordance with the *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

REGULATORY CONTROLS

Health Surveillance

- As the notified polymer could be a potential senisitiser, employers should carry out health surveillance for any worker who has been identified in the workplace risk assessment as having a significant risk of senisitisation.

CONTROL MEASURES

Occupational Health and Safety

- Appropriate engineering controls, work practices and personal protective equipment should be used to prevent skin and eye contact of workers to the notified polymer as introduced and in formulated products.

  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 *Approved Criteria for Classifying Hazardous Substances* [NOHSC:1008(2004)], workplace practices and control procedures consistent with provisions of State and Territory hazardous substances legislation must be in operation.

Disposal

- The product containing the notified polymer should be disposed of by landfill or incineration.

Storage

- Keep away from food, drink and animal feed stuffs
- Keep container tightly closed
- Keep at temperature between 18-40°C

Emergency procedures

- Spills/release of the product containing the notified polymer should be handled by collecting into closed containers for disposal, as industrial waste.

12.1. Secondary notification

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

(1) Under Section 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.

13. BIBLIOGRAPHY

NOHSC (1994) National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]. National Occupational Health and Safety Commission, Canberra, Australian Government Publishing Service.

NOHSC (1999) National Guidance Material for Spray Painting. Australian Government. National Occupational Health and Safety Commission, 1999. Accessed at http://www.nohsc.gov.au/ohslegalobligations/nationalstandards/spraypainting 12 June 2007.

NOHSC (2004) Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)]. National Occupational Health and Safety Commission, Canberra, AusInfo.

NOHSC (2003) National Code of Practice for the Preparation of Material Safety Data Sheets, 2nd edn [NOHSC:2011(2003)]. National Occupational Health and Safety Commission, Canberra, Australian Government Publishing Service.

United Nations (2003) Globally Harmonised System of Classification and Labelling of Chemicals (GHS). United Nations Economic Commission for Europe (UN/ECE), New York and Geneva.