File No.: STD/1686

August 2019

NATIONAL INDUSTRIAL CHEMICALS NOTIFICATION AND ASSESSMENT SCHEME (NICNAS)

PUBLIC REPORT

3-Oxazolidineethanol, 2-(1-methylethyl)-, 3,3'-carbonate

This Assessment has been compiled in accordance with the provisions of the *Industrial Chemicals (Notification and Assessment) Act 1989* (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 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 Energy.

This Public Report is 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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SUMMARY

The following details will be published in the NICNAS *Chemical Gazette:*

ASSESSMENT REFERENCE	APPLICANT(S)	CHEMICAL OR TRADE NAME	HAZARDOUS CHEMICAL	INTRODUCTION VOLUME	USE
STD/1686	Chemicalia Pty Ltd Huntsman Polyurethanes (Australia) Pty Ltd Resene Paints (Australia) Pty Ltd Waterproofing Technologies Pty Ltd	3-Oxazolidineethanol, 2-(1-methylethyl)-, 3,3'-carbonate	Yes	< 100 tonnes per annum	Component of industrial coatings and adhesives/sealants

CONCLUSIONS AND REGULATORY OBLIGATIONS

Hazard Classification
Based on the available information, the notified chemical is hazardous according to the *Globally Harmonised System of Classification and Labelling of Chemicals (GHS),* as adopted for industrial chemicals in Australia. The hazard classification applicable to the notified chemical/polymer is presented in the following table.

Hazard Classification	*Hazard Statement*
Flammable liquids (Category 4)	H227 – Combustible liquid
Serious eye damage/eye irritation (Category 1)	H318 – Causes serious eye damage

The notified chemical was also classified by the notifier as a skin sensitiser (Category 1), with the hazard statement: May cause an allergic skin reaction (H317).

The environmental hazard classification according to the *Globally Harmonised System of Classification and Labelling of Chemicals* (GHS) is presented below. Environmental classification under the GHS is not mandated in Australia and carries no legal status but is presented for information purposes.

Hazard Classification	*Hazard Statement*
Acute (Category 3)	H402 - Harmful to aquatic life

Human Health Risk Assessment
Provided that the recommended controls are being adhered to, under the conditions of the occupational settings described, the notified chemical is not considered to pose an unreasonable risk to the health of workers.

When used in the proposed manner, the notified chemical is not considered to pose an unreasonable risk to public health.

Environmental Risk Assessment
On the basis of the reported use pattern, the notified chemical is not considered to pose an unreasonable risk to the environment.

Recommendations

REGULATORY CONTROLS

Hazard Classification and Labelling

- The notified chemical should be classified as follows:
  - Flammable liquids (Category 4): H227 – Combustible liquid
  - Serious eye damage/eye irritation (Category 1): H318 – Causes serious eye damage

  The above should be used for products/mixtures containing the notified chemical, if applicable, based on the concentration of the notified chemical present.

Health Surveillance

- If the notified chemical is a skin sensitiser (as classified by the notifier), employers should carry out health surveillance for any worker who has been identified in the workplace risk assessment as having a significant risk of skin sensitisation.

CONTROL MEASURES

Occupational Health and Safety

- A person conducting a business or undertaking at a workplace should implement the following isolation and engineering controls to minimise occupational exposure to the notified chemical during reformulation and use:
  - Enclosed and automated system during reformulation and repackaging, where possible
  - Sufficient ventilation
  - Spray booth used for spray application where possible

- A person conducting a business or undertaking at a workplace should implement the following safe work practices to minimise occupational exposure during handling of the notified chemical:
  - Avoid contact with skin and eyes
  - Avoid inhalation of aerosols
  - Remove all sources of ignition

- A person conducting a business or undertaking at a workplace should ensure that the following personal protective equipment is used by workers to minimise occupational exposure to the notified chemical:
  - Protective clothing
  - Impervious gloves
  - Eye protection
  - Respiratory protection during spray application

  Guidance in selection of personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.

- A person conducting a business or undertaking at a workplace should implement any controls needed to limit risks from decomposition products of the notified chemical resulting from reaction with water.

- Spray applications should be carried out in accordance with the Safe Work Australia Code of Practice for *Spray Painting and Powder Coating* (SWA, 2015) or relevant State or Territory Code of Practice.

- A copy of the SDS should be easily accessible to employees.

- If products and mixtures containing the notified chemical are classified as hazardous to health in accordance with the *Globally Harmonised System of Classification and Labelling of Chemicals (GHS)* as adopted for industrial chemicals in Australia, workplace practices and control procedures consistent with provisions of State and Territory hazardous substances legislation should be in operation.

Storage

- The handling and storage of the notified chemical should be in accordance with the Safe Work Australia Code of Practice for *Managing Risks of Hazardous Chemicals in the Workplace* (SWA, 2012) or relevant State or Territory Code of Practice.

Emergency procedures

- Spills or accidental release of the notified chemical should be handled by physical containment, collection and subsequent safe disposal. Prevent spillage from entering drains or water courses.

Disposal

- Where reuse or recycling are not appropriate, dispose of the notified chemical in an environmentally sound manner in accordance with relevant Commonwealth, state, territory and local government legislation.

Regulatory Obligations

Secondary Notification
This risk assessment is based on the information available at the time of notification. The Director may call for the reassessment of the chemical under secondary notification provisions based on changes in certain circumstances. Under Section 64 of the *Industrial Chemicals (Notification and Assessment) Act (1989)* the notifier, as well as any other importer or manufacturer of the notified chemical, have post-assessment regulatory obligations to notify NICNAS when any of these circumstances change. These obligations apply even when the notified chemical is listed on the Australian Inventory of Chemical Substances (AICS).

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

(1) Under Section 64(1) of the Act; if
  - additional information on the skin sensitisation potential of the notified chemical has become available.

or

(2) Under Section 64(2) of the Act; if
  - the function or use of the chemical has changed from component of industrial coatings and adhesive/sealants, or is likely to change significantly;
  - the amount of chemical being introduced has increased, or is likely to increase, significantly;
  - the chemical has begun to be manufactured in Australia;
  - additional information has become available to the person as to an adverse effect of the chemical on occupational health and safety, public health, or the environment.

The Director will then decide whether a reassessment (i.e. a secondary notification and assessment) is required.

Safety Data Sheet
The SDS of the notified chemical provided by the notifier was reviewed by NICNAS. The accuracy of the information on the SDS remains the responsibility of the applicant.

ASSESSMENT DETAILS

1. APPLICANT AND NOTIFICATION DETAILS

APPLICANT(S)
Chemicalia Pty Ltd (ABN: 17 100 190 270)
7 Cremin Court
MOUNT WAVERLEY VIC 3149

Huntsman Polyurethanes (Australia) Pty Ltd (ABN: 40 090 446 165)
Gate 3, 765 Ballarat Road
DEER PARK VIC 3023

Resene Paints (Australia) Ltd (ABN: 65 050 034 529)
64 Link Drive
YATALA QLD 4207

Waterproofing Technologies Pty Ltd (ABN: 52 118 164 408)
295 Princes Highway
ST PETERS NSW 2044

NOTIFICATION CATEGORY
Standard (reduced fee notification): Chemical other than polymer (more than 1 tonne per year) – Similar to a chemical that has been previously assessed by NICNAS (LTD/1954)

EXEMPT INFORMATION (SECTION 75 OF THE ACT)
Data items and details exempt from publication include: Other names, degree of purity, impurities, use details, import volume, and identity of recipients.

VARIATION OF DATA REQUIREMENTS (SECTION 24 OF THE ACT)
Schedule data requirements are varied for vapour pressure, water solubility, adsorption/desorption, dissociation constant, flammability, acute toxicity (inhalation) and bioaccumulation.

PREVIOUS NOTIFICATION IN AUSTRALIA BY APPLICANT(S)
None

NOTIFICATION IN OTHER COUNTRIES
Canada (2001)
EU REACH (pre-registered 2009)
New Zealand (2006)
USA (1996)

2. IDENTITY OF CHEMICAL

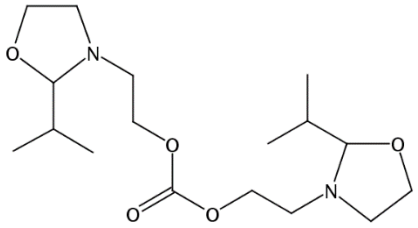
CHEMICAL NAME
3-Oxazolidineethanol, 2-(1-methylethyl)-, 3,3'-carbonate

CAS NUMBER
145899-78-1

MARKETING NAME(S)
Incozol LV
Carbonato-bisoxazolidine (product containing the notified chemical at > 90%)

MOLECULAR FORMULA
$C_{17}H_{32}N_2O_5$

STRUCTURAL FORMULA



MOLECULAR WEIGHT
344.45 g/mol

ANALYTICAL DATA
Reference NMR, IR, UV/Vis spectra were provided.

3. COMPOSITION

DEGREE OF PURITY
> 90%

4. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AT 20 °C AND 101.3 kPa: colourless liquid

Property	*Value*	*Data Source/Justification*
Freezing Point	< -50 °C	Measured
Boiling Point	189.3 °C at 99.9 kPa	Measured
Density	1,064 kg/m^3 at 20 °C	Measured
Vapour Pressure	0.00607 kPa at 25 °C	Calculated using EPI Suite
Water Solubility	Not determined	Soluble, however, the notified chemical is not hydrolytically stable in water.
Hydrolysis as a Function of pH	$t_{1/2}$ < 1 hour at pH 2.27, 9.75 & 12.10	Measured
Partition Coefficient (n-octanol/water)	log P_{OW} = 1.8 at 25 °C	Measured
Adsorption/Desorption	log K_{oc} = 1.28	QSAR
Dissociation Constant	Not determined	The notified chemical is not hydrolytically stable in water
Flash Point	76.1 °C at 101.3 kPa	Measured
Flammability	Not determined	Classified as combustible liquid based on the measured flash point
Autoignition Temperature	341 °C	Measured
Explosive Properties	Non explosive	Measured
Oxidising Properties	Non oxidising	Contains no functional groups that would imply oxidising properties

DISCUSSION OF PROPERTIES
Physical-chemical properties are based on results in the previously assessed notification LTD/1954.

Reactivity
The notified chemical decomposes rapidly (within 1 hour) in water or under acidic or basic conditions. However, it is expected to be stable under normal conditions until end-use. Reaction with water forms a chemical which is a volatile flammable liquid (Cat 2), and is an eye irritant (Cat 2).

Physical Hazard Classification
Based on the submitted physico-chemical data depicted in the above table, the notified chemical is recommended for hazard classification according to the *Globally Harmonised System of Classification and Labelling of Chemicals (GHS),* as adopted for industrial chemicals in Australia. The recommended hazard classification is presented in the following table.

Hazard classification	*Hazard statement*
Flammable Liquids (Category 4)	H227 – Combustible liquid

5. INTRODUCTION AND USE INFORMATION

MODE OF INTRODUCTION OF NOTIFIED CHEMICAL (100%) OVER NEXT 5 YEARS
The notified chemical will not be manufactured in Australia. It will be imported in neat form and at < 20% concentration as a component of coating and adhesive/sealant formulations.

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

Year	*1*	*2*	*3*	*4*	*5*
Tonnes	< 100	< 100	< 100	< 100	< 100

PORT OF ENTRY
Sydney, Melbourne, Brisbane, Adelaide and Perth

TRANSPORTATION AND PACKAGING
The neat form of the notified chemical will be imported in 25 L steel pails and 200 L steel drums. The formulations may also be directly imported in a variety of required sizes ranging from 25 mL cartridges to 200 L steel drums. The notified chemical and formulations containing the notified chemical will be distributed by road to warehouses or industrial manufacturers.

USE
The notified chemical at < 20% concentration.will be used as a component of low Volatile Organic Compounds (VOC) polyurethane and polyaspartic coatings and adhesive/sealants.

OPERATION DESCRIPTION

Reformulation
At the reformulation sites, containers of the neat form of the notified chemical will be transferred on a pallet to the production area by operators. The notified chemical will be pumped into a closed mixing kettle with polyols, polyaspartic esters, pigments, fillers and other additives to make a formulation containing the notified chemical at < 20% concentration. After mixing, samples of the formulation will be taken for quality assurance (QA), and pumped from the kettle into a variety of required package sizes.

End-use
The imported or locally manufactured coating and adhesive/sealant formulations containing the notified chemical at < 20% concentration may be used in a variety of applications at industrial sites, on surfaces such as steel and concrete. In general, the formulations will be considered as Part A of a 2-part product and will be mixed with another component (Part B) before final application. In a typical scenario, the end users will transfer the formulation into a mixer and add a polyisocyanate containing curing agent The mixture (as a coating or sealant/adhesive) would then be applied onto the required surface or structure by spray or other industrial method.

6. HUMAN HEALTH IMPLICATIONS

6.1. Exposure Assessment

6.1.1. Occupational Exposure

CATEGORY OF WORKERS

Category of Worker	*Exposure Duration (hours/day)*	*Exposure Frequency (days/year)*
Stevedores	3	10–15
Transport workers	6	260
Distribution workers	4	260
Warehouse staff	6	260
Production operators	6	260

Quality control technicians	6	260
Cleaning and maintenance workers	4	260
End use surface coating spray painters	6	260
End use adhesive/sealant applicators	6	260

EXPOSURE DETAILS
Transport and storage workers are not expected to be exposed to the notified chemical except in the unlikely event of an accident. In the event of large spills, and if exposed to water, the notified chemical may decompose to form a volatile flammable chemical that is also an eye irritant. The vapours of this chemical may form explosive mixtures in air. In such situations, workers may be exposed to the decomposition products. PPE and the use of precautions agains fire and explosion would be needed in these circumstances.

Reformulation
Dermal and ocular exposure to the notified chemical in neat form or at lower concentrations may occur during transferring and cleaning and maintenance of equipment. Exposure should be minimised through the use of enclosed and automated systems where possible, and personal protective equipment (goggles, impervious gloves, protective clothing as anticipated in the occupational settings). Inhalation exposure is not expected to be significant as reformulation is carried out under a closed system and exhaust ventilation will be in use.

Surface coating and sealant/adhesive application
Dermal, ocular and inhalation exposure to the notified chemical (at < 20% concentration) may occur during the mixing process for the two parts of the end-use products, during applications of the finished coatings or adhesive/sealant, and when cleaning equipment. Exposure should be minimised through the use of automatic or semi-automatic processes, local exhaust ventilation, spray booths and appropriate PPE, including protective goggles, clothes, gloves, footwear, and respirators if necessary.

As part of the curing process the reaction of the notified chemical with water/moisture is expected to slowly release breakdown products, including a volatile flammable chemical which is also an eye irritant. The curing process may lead to some worker exposure to these breakdown products, and in some situations the concentrations may pose a flammability hazard.

Once the coating or adhesive/sealant is dried and chemically cured, the notified chemical will be bound into an inert solid matrix and will be unavailable for exposure.

6.1.2. Public Exposure
The formulation containing the notified chemical (< 20% concentration) will be used in industrial settings only and will not be made available to the public. Once the coating and adhesive/sealant is dried and cured, the notified chemical will be bound into an inert solid matrix and will be unavailable for exposure.

6.2. Human Health Effects Assessment

No new toxicity studies were provided for the notified chemical. The results from toxicological investigations conducted on the previously assessed notification LTD/1954 are summarised in the following table.

Endpoint	***Result and Assessment Conclusion***
Acute oral toxicity – rat	LD50 > 2,000 mg/kg bw; low toxicity
Acute dermal toxicity – rat	LD50 > 2,000 mg/kg bw; low toxicity
Skin irritation – rabbit	Slightly irritating
Eye irritation – rabbit	Severely irritating
Skin sensitisation – guinea pig, adjuvant test	Inadequate evidence of sensitisation
Repeat dose oral toxicity – rat, 28 days	NOAEL = 150 mg/kg bw/day
Mutagenicity – bacterial reverse mutation	Non mutagenic
Genotoxicity – *in vitro* chromosome aberration test	Genotoxic
Genotoxicity – *in vivo* bone marrow micronucleus test	Non genotoxic

Toxicokinetics
Based on the low molecular weight (< 500 g/mol) and high water solubility of the notified chemical, there is potential for the chemical to cross biological membranes. In addition, the notified chemical decomposes rapidly (within 1 hour) in water or under acidic or basic conditions. The breakdown products of the notified chemical are

expected to have low molecular weight (< 500 g/mol) and high water solubility; therefore, there is potential for the breakdown products to cross biological membranes.

Acute toxicity
The notified chemical was found to be of low toxicity via the oral and dermal routes in studies conducted in rats.

Irritation
In studies conducted in rabbits, the notified chemical was found to be slightly irritating to the skin and severely irritating to eyes. Skin irritation was limited to very slight to moderate erythema, very slight oedema, petechial haemorrhage, atonia and desquamation which were fully resolved at the end of the observation period (14 days).

Sensitisation
The notified chemical showed equivocal evidence of skin sensitisation in a study conducted in guinea pigs. Irritant effects were observed in test animals during the first challenge; however, the response in the test group was not significantly more severe or persistent than the maximum control response. The notifier has classified the notified chemical as skin sensitisation (Category 1) in the provided SDS, consistent with the notified industry classification on the ECHA C&L inventory. It is noted that an impurity in the notified chemical and present at > 1%, is a skin sensitiser.

Repeated dose toxicity
A repeated dose oral (gavage) toxicity study on the notified chemical was conducted in rats, in which the test substance was administered at 150, 500 and 1,000 mg/kg bw/day for 28 consecutive days.

The No Observed Adverse Effect Level (NOAEL) was determined as 150 mg/kg/day in the study, based on decreased body weight gain, spinal cord vacuolation and forestomach gastritis (which were noted at 500 mg/kg/day and 1,000 mg/kg/day). However, there is uncertainty with this conclusion, as it couldn't be determined whether the animals received the target amount of the test substance due to the known reactivity of the notified chemical in a number of liquid vehicles.

Mutagenicity/Genotoxicity
The notified chemical was negative in a bacterial reverse mutation assay but gave a positive response in an *in vitro* chromosome aberration test in human peripheral lymphocytes. However, the notified chemical tested negative in an *in vivo* mouse bone marrow micronucleus test via the oral route. Based on weight of evidence, the notified chemical is not predicted to be genotoxic.

Health hazard classification
Based on the available information, the notified chemical is recommended for hazard classification according to the *Globally Harmonised System of Classification and Labelling of Chemicals (GHS),* as adopted for industrial chemicals in Australia. The recommended hazard classification is presented in the following table.

Hazard Classification	*Hazard Statement*
Serious eye damage/eye irritation (Category 1)	H318 – Causes serious eye damage

The notified chemical was also classified by the notifier as a skin sensitiser (Category 1), with the hazard statement: May cause an allergic skin reaction (H317).

6.3. Human Health Risk Characterisation

6.3.1. Occupational Health and Safety

Based on the available toxicological data, the notified chemical is of low acute systemic toxicity, slightly irritating to the skin and severely irritating to eyes. The notified chemical has been classified as a skin sensitiser by the notifier. The potential for adverse effects after repeated exposure cannot be ruled out.

Workers are at risk of serious eye damage when handling the neat chemical as introduced during reformulation processes. Potential irritation effects are expected to be reduced at the proposed concentration (< 20%) of the chemical in end-uses. Exposure to the notified chemical during formulation, repackaging and applications is expected to be limited by the use of engineering controls and PPE. Once the coating is dried and cured, the notified chemical will be bound within an inert solid matrix and will not be available for exposure.

One of the decomposition products from the chemical's reaction with water is an eye irritant Cat 2, a flammable liquid Cat 2, and may volatilise to form explosive mixtures in air. This chemical could be released in higher quantities in spillages, and is expected to be emitted at lower levels during curing of the coatings and adhesives. Any risk to workers would be minimised by workplace controls specific to these workplace scenarios.

Therefore, given the use of workplace controls to minimise exposure under the occupational settings described, the risk to workers from use of the notified chemical is not considered to be unreasonable.

6.3.2. Public Health

The notified chemical will be used in industrial settings only and will not be made available to the public. Members of the public may come into contact with surfaces coated with products containing the notified chemical. However, once the coatings have dried and cured, the notified chemical will be bound within the inert solid matrix and will be unavailable for exposure.

Based on the assessed use patterns, the risk to the public from use of the notified chemical is not considered to be unreasonable.

7. ENVIRONMENTAL IMPLICATIONS

7.1. Environmental Exposure & Fate Assessment

7.1.1. Environmental Exposure

RELEASE OF CHEMICAL AT SITE

The notified chemical will be imported at > 90% or as a component of formulations and may be reformulated and/or repacked into smaller containers. No significant release of the notified chemical is expected from transportation, storage, reformulation and potential repackaging processes, except in the unlikely event of accidental spills or leaks. In the event of spills, the notified chemical is expected to be collected with inert adsorbents, and contained in recovery drums to be disposed of to landfill.

RELEASE OF CHEMICAL FROM USE

Industrial coatings and adhesives containing the notified chemical will be used by professional users in industrial settings only. During use, paints and coatings containing the notified chemical are expected to be mixed with the Part B of the products applied by spray techniques. Spray applications are expected to occur within spray booths with engineering controls to collect particulate overspray. Overspray and solid wastes from application of the industrial paints and coatings containing the notified chemical will be collected and disposed of to landfill. The notified chemical may also be mixed and applied by industrial processors during its use as a sealant/adhesive. Residues containing the notified chemical in application equipment are expected to be rinsed into containers, recycled, or allowed to cure before disposal as solid wastes to landfill.

RELEASE OF CHEMICAL FROM DISPOSAL

The notified chemical in industrial coatings and adhesives is expected to share the fate of the substrate to which it has been applied. These are predominantly expected to be disposed to landfill, or thermally decomposed during metal reclamation.

7.1.2. Environmental Fate

The majority of the notified chemical is expected to be cured within an inert matrix, and is expected to share the fate of the articles to which it has been applied. These will involve eventual disposal to landfill, or thermal decomposition during metal reclamation. The notified chemical is also expected to enter landfill as collected wastes and residues. Once cured, the notified chemical is not expected to be either bioavailable or biodegradable.

In the unlikely event of the notified chemical's release to surface water, the notified chemical will not readily biodegrade but will rapidly hydrolyse as indicated by submitted studies. For the details of the environmental fate studies refer to the report for notification LTD/1954. As the notified chemical is not stable in the aquatic environment and has a low n-octanol/water partition coefficient (log P_{OW} = 1.8), it is not expected to bioaccumulate. In surface waters and landfill, the notified chemical is expected to degrade via biotic and abiotic processes to form water and oxides of carbon and nitrogen.

7.1.3. Predicted Environmental Concentration (PEC)

The predicted environmental concentration (PEC) has not been calculated, as significant release of the notified chemical to the aquatic environment is not expected, based on its reported use pattern in industrial paints, coatings, adhesives and sealants and its rapid hydrolytic degradability.

7.2. Environmental Effects Assessment

No new ecotoxicity studies were provided for the notified chemical. The ecotoxicological investigations provided were conducted on the notified chemical at ~75% concentration and previously assessed for notification LTD/1954. The results are summarised below.

Endpoint	*Result*	*Assessment Conclusion*
Fish Toxicity	96 h LC50 = 85.7 mg/L	Harmful to fish
Daphnia Toxicity	48 h EC50 > 100 mg/L	Not harmful to aquatic invertebrates
Algal Toxicity	72 h EC50 = 93.1 mg/L	Harmful to algae
Inhibition of Bacterial Respiration	3 h IC50 > 1000 mg/L	Not inhibitory to microbial respiration

The notified chemical is hydrolytically unstable and the reported toxicity was likely caused by the degradants of the notified chemical (see LTD/1954 for further details of the studies). Based on the above ecotoxicological endpoints, the notified chemical is harmful to aquatic life. Therefore, the notified chemical is classified as 'Acute Category 3: Harmful to aquatic life' according to the *Globally Harmonised System of Classification and Labelling of Chemicals (GHS)* (United Nations, 2009). Based on its acute toxicity endpoints, rapid hydrolytic degradability and low partition coefficient, the notified chemical is not formally classified for chronic toxicity under the GHS.

7.2.1. Predicted No-Effect Concentration

The predicted no-effects concentration (PNEC) has been calculated from the most sensitive endpoint for fish. A safety factor of 100 was used given three acute endpoints are available.

Predicted No-Effect Concentration (PNEC) for the Aquatic Compartment		
LC50 (Fish)	85.70	mg/L
Assessment Factor	100	
Mitigation Factor	1	
PNEC	857	µg/L

7.3. Environmental Risk Assessment

The Risk Quotient (Q = PEC/PNEC) of the notified chemical has not been calculated as a PEC is not available due to the low potential for release to the aquatic compartment based on its assessed use pattern in industrial paints, coatings, adhesives and sealants. The majority of the notified chemical is expected to be disposed of to landfill bound within the inert coating matrix and is not expected to be mobile or bioavailable in this form. Therefore, on the basis of the assessed use pattern, the notified chemical is not expected to pose an unreasonable risk to the environment.

BIBLIOGRAPHY

NTC (2017) Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG code), Edition 7.5, National Transport Commission, Commonwealth of Australia

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