Safety Data Sheet

Document group:	33-5983-3	**Version number:**	1.00
Issue Date:	01/11/2016	**Supersedes date:**	Initial issue.

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances and New Organisms Act 1996 (HSNO Act) and Regulations, as amended.

IDENTIFICATION:

1.1. Product identifier
3M™ Impact Resistant Structural Adhesive PNs 07333, 57333

Product Identification Numbers
60-4550-8333-1

1.2. Recommended use and restrictions on use

Recommended use
Automotive., Two-part colour changing adhesive with optimized shear, peel and impact performance.

1.3. Supplier's details

Address:	3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland
Telephone:	(09) 477 4040
E Mail:	innovation@nz.mmm.com
Website:	3m.co.nz

1.4. Emergency telephone number
24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the SDSs for components of this product are:

33-5984-1, 33-5988-2

TRANSPORT INFORMATION

60-4550-8333-1

NEW ZEALAND LAND TRANSPORT:
UN2735, AMINES, LIQUID, CORROSIVE, N.O.S., (bis(3-aminopropyl)ether of diethylene glycol and methylenedi(cyclohexylamine)), 8, II, LIMITED QUANTITY

IATA: International Air Transport Association

UN2735, AMINES, LIQUID, CORROSIVE, N.O.S., (bis(3-aminopropyl)ether of diethylene glycol and methylenedi(cyclohexylamine))), 8, II

IMO: International Maritime Organization
UN2735, AMINES, LIQUID, CORROSIVE, N.O.S., (bis(3-aminopropyl)ether of diethylene glycol and methylenedi(cyclohexylamine)), 8, II, LIMITED QUANTITY

Revision information:
No revision information

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Safety Data Sheet

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Issue Date:	01/11/2016	**Supersedes date:**	Initial issue.

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances and New Organisms Act 1996 (HSNO Act) and Regulations, as amended.

SECTION 1: Identification

1.1. Product identifier
3M™ Impact Resistant Structural Adhesive (Part B) PNs 07333, 57333

1.2. Recommended use and restrictions on use

Recommended use
Automotive., Base side of two-part color changing adhesive with optimized shear, peel and impact performance.

1.3. Supplier's details

Address:	3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland
Telephone:	(09) 477 4040
E Mail:	innovation@nz.mmm.com
Website:	3m.co.nz

1.4. Emergency telephone number
24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classified as hazardous according to the New Zealand, Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 as amended.
Not classified as a Dangerous Good according to; New Zealand, Land Transport Rule: Dangerous Goods 2005 (Rule 45001/1) as amended, NZS 5433:2012 Transport of Dangerous Goods on Land, UN Model Regulations on the Transport of Dangerous Goods, International Maritime Dangerous Goods Code and IATA Dangerous Goods Regulations.

HSNO classification
6.3B Irritating to the skin
6.4A Irritating to the eye
6.5B Skin sensitiser
6.6B Suspected human mutagen
6.7B Suspected human carcinogen
6.8B Suspected human reproductive or developmental toxicant
9.1C Aquatic toxicity

2.2. Label elements
SIGNAL WORD
WARNING!

Symbols:
Health Hazard | Exclamation mark |

Pictograms

HAZARD STATEMENTS:

H319	Causes serious eye irritation.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H361	Suspected of damaging fertility or the unborn child.
H351	Suspected of causing cancer.
H341	Suspected of causing genetic defects.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P104	Read Safety Data Sheet before use.
P280E	Wear protective gloves.
P281	Use personal protective equipment as required.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	% by Weight
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	25068-38-6	60 - 100
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	1 - 5
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	14228-73-0	0.1 - 5
Benzoic Acid, C9-C11-Branched Alkyl Esters	131298-44-7	1 - 5
Inorganic Filler	Trade Secret	1 - 5
Treated Filler	Trade Secret	1 - 5
Treated Inorganic Filler	Trade Secret	1 - 5

Phenolphthalein	77-09-8	< 0.5

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.
A product risk assessment is recommended to determine if eye wash facilities may be required when using this product in the workplace.

If swallowed
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1 Information on toxicological effects

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible.

Place in a closed container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

Refer to Section 15: HSNO Controls for more information.

7.1. Precautions for safe handling
Avoid breathing of vapours created during the cure cycle. Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators…) as required.

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from acids. Store away from oxidising agents.

7.3. Approved handler test certificate
Not required

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Inorganic Filler	Trade Secret	New Zealand WES	TWA(8 hours):10 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
New Zealand WES : New Zealand Workplace Exposure Standards.
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m^3: milligrams per cubic metre
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect vented goggles.

Refer AS/NZS 1336 - Recommended practices for occupational eye protection and for performance specifications AS/NZS 1337, Parts 1 - 6 - Personal eye-protection.

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended: Polymer laminate

Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Refer AS/NZS 1715 - Selection, use and maintenance of respiratory protective equipment and AS/NZS 1716 - Respiratory protective devices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Appearance/Odour	Silver Grey Thick Paste (Very Slight Acrylic Smell)
Boiling point/Initial boiling point/Boiling range	35 ºC
Flash point	103.9 ºC
Evaporation rate	*No data available.*
Flammability (solid, gas)	Not applicable.
Vapour pressure	666.6 Pa
Density	1.138 g/ml
Relative density	1.138 [*Ref Std:*WATER=1]
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*No data available.*
Viscosity	100,000 - 500,000 mPa-s
Volatile organic compounds (VOC)	0 % weight
Volatile organic compounds (VOC)	0 g/l
VOC less H2O & exempt solvents	0 g/l

SECTION 10: Stability and reactivity

10.1 Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Heat.
Sparks and/or flames.

10.5 Incompatible materials
Strong acids.
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	Condition
Aldehydes.	Not specified.
Carbon monoxide.	Not specified.
Carbon dioxide.	Not specified.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact
Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Additional Health Effects:

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Genotoxicity:
Genotoxicity and Mutagenicity: May interact with genetic material and possibly alter gene expression.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	Rat	LD50 > 1,600 mg/kg
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Rat	LD50 > 1,000 mg/kg
Treated Filler	Dermal	Rat	LD50 > 2,000 mg/kg
Treated Filler	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Treated Filler	Ingestion	Rat	LD50 6,450 mg/kg
Treated Inorganic Filler	Dermal	Rabbit	LD50 > 5,000 mg/kg
Treated Inorganic Filler	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Treated Inorganic Filler	Ingestion	Rat	LD50 > 5,110 mg/kg
Benzoic Acid, C9-C11-Branched Alkyl Esters	Dermal	Rabbit	LD50 > 2,000 mg/kg
Benzoic Acid, C9-C11-Branched Alkyl Esters	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Benzoic Acid, C9-C11-Branched Alkyl Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Inorganic Filler	Dermal	Rabbit	LD50 > 5,000 mg/kg
Inorganic Filler	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Inorganic Filler	Ingestion	Rat	LD50 > 5,110 mg/kg
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Dermal	Rabbit	LD50 4,000 mg/kg
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.3 mg/l
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Ingestion	Rat	LD50 7,010 mg/kg
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	Dermal	Rabbit	LD50 2,500 mg/kg
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	Ingestion	Rat	LD50 2,450 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Rabbit	Mild irritant
Treated Filler	Rabbit	No significant irritation
Treated Inorganic Filler	Rabbit	No significant irritation
Inorganic Filler	Rabbit	No significant irritation
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Rabbit	Mild irritant
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	Professional judgement	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Rabbit	Moderate irritant
Treated Filler	Rabbit	No significant irritation
Treated Inorganic Filler	Rabbit	No significant irritation
Inorganic Filler	Rabbit	No significant irritation
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Rabbit	Corrosive
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	Professio	Mild irritant

	nal judgemen t	

Skin Sensitisation

Name	Species	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Human and animal	Sensitising
Treated Inorganic Filler	Human and animal	Not sensitizing
Inorganic Filler	Human and animal	Not sensitizing
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Guinea pig	Some positive data exist, but the data are not sufficient for classification
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	similar compoun ds	Sensitising

Respiratory Sensitisation

Name	Species	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Human	Some positive data exist, but the data are not sufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	In vivo	Not mutagenic
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	In Vitro	Some positive data exist, but the data are not sufficient for classification
Treated Inorganic Filler	In Vitro	Not mutagenic
Inorganic Filler	In Vitro	Not mutagenic
3-(Trimethoxysilyl)Propyl Glycidyl Ether	In vivo	Not mutagenic
3-(Trimethoxysilyl)Propyl Glycidyl Ether	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Treated Inorganic Filler	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Inorganic Filler	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Dermal	Mouse	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Not toxic to female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Not toxic to male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	Not toxic to development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	Not toxic to development	Rat	NOAEL 750 mg/kg/day	2 generation

Treated Filler	Ingestion	Not toxic to development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
Treated Inorganic Filler	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Treated Inorganic Filler	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Treated Inorganic Filler	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Inorganic Filler	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Inorganic Filler	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Inorganic Filler	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Ingestion	Not toxic to male reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 3,000 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Treated Filler	Inhalation	respiratory system	All data are negative	Rat	NOAEL 0.812 mg/l	90 minutes
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Dermal	nervous system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	Ingestion	auditory system | heart | endocrine system | hematopoietic system | liver | eyes | kidney and/or bladder	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days
Treated Filler	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Treated Inorganic Filler	Inhalation	respiratory system | silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
Inorganic Filler	Inhalation	respiratory system | silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Ingestion	heart | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | liver |	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days

		immune system | nervous system | kidney and/or bladder | respiratory system				

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity
Ecotoxic to the aquatic environment.
9.1C Aquatic toxicity

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Phenolphthalein	77-09-8		Data not available or insufficient for classification			
Phenolphthalein	77-09-8	Green algae	Experimental	72 hours	NOEC	0.57 mg/l
Phenolphthalein	77-09-8	Green algae	Experimental	72 hours	EC50	2.5 mg/l
Phenolphthalein	77-09-8	Water flea	Experimental	48 hours	EC50	>4.34 mg/l
Treated Filler	Trade Secret	Rainbow trout	Experimental	21 days	NOEC	>100 mg/l
Treated Filler	Trade Secret	Western Mosquitofish	Experimental	96 hours	LC50	>100 mg/l
Treated Filler	Trade Secret	Rainbow trout	Experimental	42 days	NOEC	>100 mg/l
1,4-Bis[(2,3-Epoxypropoxy) Methyl]Cyclohexane	14228-73-0	Water flea	Estimated	48 hours	EC50	22 mg/l
1,4-Bis[(2,3-Epoxypropoxy) Methyl]Cyclohexane	14228-73-0	Ricefish	Estimated	96 hours	LC50	13 mg/l
1,4-Bis[(2,3-Epoxypropoxy) Methyl]Cyclohexane	14228-73-0	Green algae	Estimated	72 hours	EC50	>93 mg/l
1,4-Bis[(2,3-Epoxypropoxy) Methyl]Cycloh	14228-73-0	Green algae	Estimated	72 hours	NOEC	29 mg/l

exane						
1,4-Bis[(2,3-Epoxypropoxy) Methyl]Cyclohexane	14228-73-0	Green algae	Estimated	72 hours	NOEC	29 mg/l
1,4-Bis[(2,3-Epoxypropoxy) Methyl]Cyclohexane	14228-73-0	Green algae	Estimated	72 hours	EC50	>93 mg/l
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	Green algae	Experimental	96 hours	EC50	350 mg/l
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	Common Carp	Experimental	96 hours	LC50	55 mg/l
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	Water flea	Experimental	48 hours	EC50	473 mg/l
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	Green algae	Experimental	96 hours	NOEC	130 mg/l
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	Water flea	Experimental	21 days	NOEC	>=100 mg/l
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	Green algae	Experimental	96 hours	EC50	350 mg/l
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	Green Algae	Experimental	96 hours	NOEC	130 mg/l
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	Crustecea other	Experimental	48 hours	LC50	324 mg/l
Benzoic Acid, C9-C11-Branched Alkyl Esters	131298-44-7	Water flea	Experimental	48 hours	EC50	0.54 mg/l
Benzoic Acid, C9-C11-Branched Alkyl Esters	131298-44-7		Data not available or insufficient for classification			
Inorganic Filler	Trade Secret		Data not available or insufficient for classification			
Treated Inorganic Filler	Trade Secret		Data not available or			

			insufficient for classification			
Treated Inorganic Filler	Trade Secret	Zebra Fish	Experimental	96 hours	LC50	>10,000 mg/l
4,4'-Isopropylidene diphenol-Epichlorohydrin Polymer	25068-38-6	Ricefish	Experimental	96 hours	LC50	1.41 mg/l
4,4'-Isopropylidene diphenol-Epichlorohydrin Polymer	25068-38-6	Water flea	Experimental	21 days	NOEC	0.3 mg/l
4,4'-Isopropylidene diphenol-Epichlorohydrin Polymer	25068-38-6	Water flea	Estimated	21 days	NOEC	0.3 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
1,4-Bis[(2,3-Epoxypropoxy) Methyl]Cyclohexane	14228-73-0	Estimated Hydrolysis		Hydrolytic half-life	7 days (t 1/2)	Other methods
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	Experimental Hydrolysis		Hydrolytic half-life	6.5 hours (t 1/2)	Other methods
4,4'-Isopropylidene diphenol-Epichlorohydrin Polymer	25068-38-6	Laboratory Hydrolysis		Hydrolytic half-life	<2 days (t 1/2)	Other methods
Treated Inorganic Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Inorganic Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Treated Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
1,4-Bis[(2,3-Epoxypropoxy) Methyl]Cyclohexane	14228-73-0	Estimated Biodegradation	28 days	BOD	4 % weight	OECD 301C - MITI test (I)
3-(Trimethoxysilyl)Propyl	2530-83-8	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	37 % weight	Other methods

Glycidyl Ether						
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	25068-38-6	Laboratory Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
Phenolphthalein	77-09-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Benzoic Acid, C9-C11-Branched Alkyl Esters	131298-44-7	Estimated Chemical Degradation		Photolytic half-life (in air)	2.2 days (t 1/2)	Other methods
Benzoic Acid, C9-C11-Branched Alkyl Esters	131298-44-7	Experimental Aquatic Biodegrad. - Aerobic	28 days	BOD	67 % weight	OECD 301C - MITI test (I)
Phenolphthalein	77-09-8	Experimental Biodegradation	28 days	BOD	76 % weight	OECD 301F - Manometric respirometry
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	14228-73-0	Estimated Biodegradation	28 days	CO2 evolution	64 % weight	OECD 301B - Modified sturm or CO2
Benzoic Acid, C9-C11-Branched Alkyl Esters	131298-44-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	25068-38-6	Experimental Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
4,4'-Isopropylidenediphenol-Epichlorohydrin Polymer	25068-38-6	Estimated Hydrolysis		Hydrolytic half-life	<2 days (t 1/2)	Other methods

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Treated Inorganic Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Inorganic Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

Treated Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
1,4-Bis[(2,3-Epoxypropoxy) Methyl]Cyclohexane	14228-73-0	Estimated BCF - Other		Bioaccumulation factor	3	Estimated: Bioconcentration factor
4,4'-Isopropylidene diphenol-Epichlorohydrin Polymer	25068-38-6	Laboratory BCF - Other	28 days	Bioaccumulation factor	<42	Other methods
Phenolphthalein	77-09-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Benzoic Acid, C9-C11-Branched Alkyl Esters	131298-44-7	Estimated Bioconcentration		Bioaccumulation factor	466	Estimated: Bioconcentration factor
Benzoic Acid, C9-C11-Branched Alkyl Esters	131298-44-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
1,4-Bis[(2,3-Epoxypropoxy) Methyl]Cyclohexane	14228-73-0	Estimated Bioconcentration		Bioaccumulation factor	3	Estimated: Bioconcentration factor
Phenolphthalein	77-09-8	Estimated Bioconcentration		Bioaccumulation factor	5.2	Estimated: Bioconcentration factor
4,4'-Isopropylidene diphenol-Epichlorohydrin Polymer	25068-38-6	Experimental BCF-Carp	28 days	Bioaccumulation factor	<=42	Other methods

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
See Section 11.1 Information on toxicological effects

Incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

Packaging (that may or may not contain any residual substance) may be lawfully disposed of by householders or other consumers through public or commercial waste collection services.

SECTION 14: Transport Information

New Zealand Land Transport Rule: Dangerous Goods - Road/Rail Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

Hazchem Code: Not applicable.
IERG: Not applicable.

International Air Transport Association (IATA) - Air Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

International Maritime Dangerous Goods Code (IMDG) - Marine Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.
Marine Pollutant: Not applicable.

SECTION 15: Regulatory information

HSNO Approval number	HSR002679
Group standard name	Surface Coatings and Colourants (Toxic [6.7]) Group Standard 2006
HSNO Hazard classification	Refer to Section 2: Hazard identification

NZ Inventory of Chemicals (NZIoC) Status
All applicable chemical ingredients in this material are in compliance with NZIoC listing requirements.

HSNO Controls

Approved handler test certificate	Not required
Location and transit Depot certification test	Not required
Hazardous atmosphere zone	Not required
Fire extinguishers	Not required
Emergency response plan	100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a HSNO 6.1D, 6.5A, 6.5B, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for all other substances)
Secondary containment	100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a HSNO 6.1D, 6.5A, 6.5B, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for all other substances)
Tracking	Not required
Warning signage	100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a

HSNO 8.3A, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for a HSNO 6.1D or 9.1D substance)

SECTION 16: Other information

Revision information:
No revision information

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date of issue. TO THE EXTENT PERMITTED BY LAW, 3M MAKES NO WARRANTY, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluates the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application. 3M provides information in electronic form as a service to customers. Due to the remote possibility of electronic transfer may have resulted in errors, omissions or alterations in this information; 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

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Safety Data Sheet

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Issue Date:	01/11/2016	**Supersedes date:**	Initial issue.

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances and New Organisms Act 1996 (HSNO Act) and Regulations, as amended.

SECTION 1: Identification

1.1. Product identifier
3M™ Impact Resistant Structural Adhesive Part A, PNs 07333, 57333

1.2. Recommended use and restrictions on use

Recommended use
Automotive., Accelerator for two-part color changing adhesive with optimized shear, peel and impact performance.

1.3. Supplier's details

Address:	3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland
Telephone:	(09) 477 4040
E Mail:	innovation@nz.mmm.com
Website:	3m.co.nz

1.4. Emergency telephone number
24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classified as hazardous according to the New Zealand, Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 as amended.
Classified as a Dangerous Good according to; New Zealand, Land Transport Rule: Dangerous Goods 2005 (Rule 45001/1) as amended, NZS 5433:2012 Transport of Dangerous Goods on Land, UN Model Regulations on the Transport of Dangerous Goods, International Maritime Dangerous Goods Code and IATA Dangerous Goods Regulations. For transport classification, refer to SECTION 14: Transport Information.

HSNO classification
8.2B Corrosive to skin
8.3A Corrosive to eye
6.1E Acute toxicity
6.5B Skin sensitiser
6.9B Harmful to human target organs/systems
9.1D Aquatic toxicity

2.2. Label elements
SIGNAL WORD
DANGER!

Symbols:
Health Hazard | Corrosion | Exclamation mark |

Pictograms

HAZARD STATEMENTS:

H303	May be harmful if swallowed.
H313	May be harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure: liver | musculoskeletal system |
H402	Harmful to aquatic life.

PRECAUTIONARY STATEMENTS

Prevention:

P104	Read Safety Data Sheet before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280A	Wear eye/face protection.
P280D	Wear protective gloves, protective clothing, and eye/face protection.
P280E	Wear protective gloves.

Response:

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P331	Do NOT induce vomiting.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards
Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines. - May cause

chemical gastrointestinal burns.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	% by Weight
Bis(3-Aminopropyl) Ether of Diethylene Glycol	4246-51-9	15 - 40
Epoxy Copolymer	Trade Secret	10 - 30
Aluminium	7429-90-5	1 - 10
Methylenedi(Cyclohexylamine)	1761-71-3	1 - 10
Synthetic Rubber	Trade Secret	1 - 10
Mineral Filler	Trade Secret	1 - 5
Surface Treated Inorganic Filler	Trade Secret	1 - 5
Treated Filler	Trade Secret	1 - 5
Tris(2,4,6-Dimethylaminomonomethyl)phenol	90-72-2	< 3
Inorganic Filler	Trade Secret	< 3
Formaldehyde, Polymer with Benzenamine, Hydrogenated	135108-88-2	< 2
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	< 2

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
Immediately flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

Eye contact
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.
A product risk assessment is recommended to determine if eye wash facilities may be required when using this product in the workplace.

If swallowed
Rinse mouth. Do not induce vomiting. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1 Information on toxicological effects

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

Refer to Section 15: HSNO Controls for more information.

7.1. Precautions for safe handling
Keep out of reach of children. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from acids. Store away from oxidising agents.

7.3. Approved handler test certificate
Not required

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	ACGIH	CEIL: 0.1 mg/m3	Skin
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	New Zealand WES	CEIL: 0.1 mg/m3	Skin
Aluminium	7429-90-5	ACGIH	TWA(respirable fraction):1 mg/m3	A4: Not class. as human carcinogin
Aluminium	7429-90-5	New Zealand WES	TWA(Al, welding fume)(8 hours):5 mg/m3;TWA(as Al pyrophoric powder)(8 hours): 5 mg/m3; TWA(as Al)(8 hours): 2 mg/m3; TWA(as	

Inorganic Filler	Trade Secret	New Zealand WES	Al, dust)(8 hours): 10 mg/m3. TWA(as inhalable dust)(8 hours):5 mg/m3;TWA(as respirable dust)(8 hours):1 f/mL;TWA(Respirable fibers)(8 hours):1 f/mL	
Inorganic Filler	Trade Secret	Manufacturer determined	TWA(as dust):10 mg/m3	
Inorganic Filler	Trade Secret	ACGIH	TWA(as fiber):0.2 fiber/cc;TWA(as fiber):1 fiber/cc;TWA(inhalable fraction):5 mg/m3	A3: Confirmed animal carcin., A4: Not class. as human carcin, A2: Suspected human carcin.

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
New Zealand WES : New Zealand Workplace Exposure Standards.
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m³: milligrams per cubic metre
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Full face shield.
Indirect vented goggles.

Refer AS/NZS 1336 - Recommended practices for occupational eye protection and for performance specifications AS/NZS 1337, Parts 1 - 6 - Personal eye-protection.

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended: Nitrile rubber.
Polyvinyl alcohol (PVA).

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Nitrile boots.
Apron – Nitrile

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Refer AS/NZS 1715 - Selection, use and maintenance of respiratory protective equipment and AS/NZS 1716 - Respiratory protective devices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Paste
Appearance/Odour	Silver Grey Thick Paste (Very Slight Acrylic Smell)
Odour threshold	*No data available.*
pH	*No data available.*
Melting point/Freezing point	*No data available.*
Boiling point/Initial boiling point/Boiling range	*No data available.*
Flash point	103.9 ºC [*Test Method:*Closed Cup]
Evaporation rate	*No data available.*
Flammability (solid, gas)	Not applicable.
Vapour pressure	666.6 Pa
Density	*No data available.*
Relative density	1.23 [*Ref Std:*WATER=1]
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
Viscosity	55,000 - 80,000 mPa-s
Volatile organic compounds (VOC)	1.8 % weight [*Test Method:*calculated per CARB title 2]
Volatile organic compounds (VOC)	21 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Percent volatile	1.8 % weight
VOC less H2O & exempt solvents	21 g/l [*Test Method:*calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1 Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Heat.
Sparks and/or flames.

10.5 Incompatible materials
Strong acids.
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	Condition
Aldehydes.	Not specified.
Carbon monoxide.	Not specified.
Carbon dioxide.	Not specified.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact
May be harmful in contact with skin.
Corrosive (skin burns): Signs/symptoms may include localised redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching. May cause additional health effects (see below).

Eye contact
Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion
May be harmful if swallowed.
Gastrointestinal corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea; blood in the faeces and/or vomitus may also be seen. May cause additional health effects (see below).

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:
Liver effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice. Muscular effects: Signs/symptoms may include generalised muscle weakness, paralysis and atrophy.

Additional information:
Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value

Overall product	Dermal		No data available; calculated ATE2,000 - 5,000 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE >12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
Bis(3-Aminopropyl) Ether of Diethylene Glycol	Dermal	Rabbit	LD50 2,500 mg/kg
Bis(3-Aminopropyl) Ether of Diethylene Glycol	Ingestion	Rat	LD50 3,160 mg/kg
Aluminium	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminium	Ingestion		LD50 estimated to be > 5,000 mg/kg
Aluminium	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.888 mg/l
Methylenedi(Cyclohexylamine)	Dermal	Rabbit	LD50 2,110 mg/kg
Methylenedi(Cyclohexylamine)	Ingestion	Rat	LD50 350 mg/kg
Synthetic Rubber	Dermal	Rabbit	LD50 > 3,000 mg/kg
Synthetic Rubber	Ingestion	Rat	LD50 > 15,300 mg/kg
Surface Treated Inorganic Filler	Dermal	Rabbit	LD50 > 5,000 mg/kg
Surface Treated Inorganic Filler	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Surface Treated Inorganic Filler	Ingestion	Rat	LD50 > 5,110 mg/kg
Treated Filler	Dermal	Rat	LD50 > 2,000 mg/kg
Treated Filler	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Treated Filler	Ingestion	Rat	LD50 6,450 mg/kg
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Dermal	Rat	LD50 1,280 mg/kg
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Ingestion	Rat	LD50 1,000 mg/kg
Mineral Filler	Dermal		LD50 estimated to be > 5,000 mg/kg
Mineral Filler	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
m-Xylene-.alpha.alpha'.Diamine	Dermal	Rabbit	LD50 > 2,000 mg/kg
m-Xylene-.alpha.alpha'.Diamine	Inhalation-Dust/Mist (4 hours)	Rat	LC50 1.2 mg/l
m-Xylene-.alpha.alpha'.Diamine	Ingestion	Rat	LD50 980 mg/kg
Inorganic Filler	Dermal		LD50 estimated to be > 5,000 mg/kg
Inorganic Filler	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Bis(3-Aminopropyl) Ether of Diethylene Glycol	Rabbit	Corrosive
Aluminium	Rabbit	No significant irritation
Methylenedi(Cyclohexylamine)	Rabbit	Corrosive
Surface Treated Inorganic Filler	Rabbit	No significant irritation
Treated Filler	Rabbit	No significant irritation
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Rabbit	Corrosive
m-Xylene-.alpha.alpha'.Diamine	Rat	Corrosive
Inorganic Filler	Professional judgement	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Bis(3-Aminopropyl) Ether of Diethylene Glycol	similar health	Corrosive

	hazards	
Aluminium	Rabbit	No significant irritation
Methylenedi(Cyclohexylamine)	Rabbit	Corrosive
Surface Treated Inorganic Filler	Rabbit	No significant irritation
Treated Filler	Rabbit	No significant irritation
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Rabbit	Corrosive
m-Xylene-.alpha.alpha'.Diamine	Rabbit	Corrosive
Inorganic Filler	Professional judgement	No significant irritation

Skin Sensitisation

Name	Species	Value
Aluminium	Guinea pig	Not sensitizing
Methylenedi(Cyclohexylamine)	Guinea pig	Sensitising
Synthetic Rubber	Guinea pig	Some positive data exist, but the data are not sufficient for classification
Surface Treated Inorganic Filler	Human and animal	Not sensitizing
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Guinea pig	Some positive data exist, but the data are not sufficient for classification
m-Xylene-.alpha.alpha'.Diamine	Guinea pig	Sensitising

Respiratory Sensitisation

Name	Species	Value
Aluminium	Human	Some positive data exist, but the data are not sufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
Aluminium	In Vitro	Not mutagenic
Surface Treated Inorganic Filler	In Vitro	Not mutagenic
Tris(2,4,6-Dimethylaminomonomethyl)phenol	In Vitro	Not mutagenic
Mineral Filler	In Vitro	Not mutagenic
m-Xylene-.alpha.alpha'.Diamine	In Vitro	Not mutagenic
m-Xylene-.alpha.alpha'.Diamine	In vivo	Not mutagenic
Inorganic Filler	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Surface Treated Inorganic Filler	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Inorganic Filler	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Surface Treated Inorganic Filler	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation

Surface Treated Inorganic Filler	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Surface Treated Inorganic Filler	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Treated Filler	Ingestion	Not toxic to development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
m-Xylene-.alpha.alpha'.Diamine	Ingestion	Not toxic to female reproduction	Rat	NOAEL 450 mg/kg/day	1 generation
m-Xylene-.alpha.alpha'.Diamine	Ingestion	Not toxic to male reproduction	Rat	NOAEL 450 mg/kg	1 generation
m-Xylene-.alpha.alpha'.Diamine	Ingestion	Not toxic to development	Rat	NOAEL 450 mg/kg/day	1 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Bis(3-Aminopropyl) Ether of Diethylene Glycol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Methylenedi(Cyclohexylamine)	Inhalation	respiratory irritation	May cause respiratory irritation	similar health hazards	NOAEL Not available	
Treated Filler	Inhalation	respiratory system	All data are negative	Rat	NOAEL 0.812 mg/l	90 minutes
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
m-Xylene-.alpha.alpha'.Diamine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not avaliable	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Aluminium	Inhalation	nervous system | respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Methylenedi(Cyclohexylamine)	Ingestion	liver | muscles	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 15 mg/kg/day	36 days
Surface Treated Inorganic Filler	Inhalation	respiratory system | silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
Treated Filler	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Dermal	skin | liver | nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 125 mg/kg/day	28 days
Tris(2,4,6-Dimethylaminomonomethyl)phenol	Dermal	auditory system | hematopoietic system | eyes	All data are negative	Rat	NOAEL 125 mg/kg/day	28 days
Mineral Filler	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Mineral Filler	Inhalation	pulmonary fibrosis	All data are negative	Human and animal	NOAEL Not available	
m-Xylene-.alpha.alpha'.Diamine	Ingestion	endocrine system | blood | bone marrow	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 600 mg/kg/day	28 days
Inorganic Filler	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for	Human	NOAEL not available	occupational exposure

			classification			

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity
Ecotoxic to the aquatic environment.
9.1D Aquatic toxicity

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Epoxy Copolymer	Trade Secret		Data not available or insufficient for classification			
Mineral Filler	Trade Secret		Data not available or insufficient for classification			
Synthetic Rubber	Trade Secret		Data not available or insufficient for classification			
Treated Filler	Trade Secret	Western Mosquitofish	Experimental	96 hours	LC50	>100 mg/l
Treated Filler	Trade Secret	Rainbow trout	Experimental	21 days	NOEC	>100 mg/l
Treated Filler	Trade Secret	Rainbow trout	Experimental	42 days	NOEC	>100 mg/l
Inorganic Filler	Trade Secret		Data not available or insufficient for classification			
Inorganic Filler	Trade Secret	Water flea	Experimental	72 hours	EC50	>1,000 mg/l
Inorganic Filler	Trade Secret	Zebra Fish	Experimental	96 hours	LC50	>1,000 mg/l
Inorganic Filler	Trade Secret	Green algae	Experimental	72 hours	NOEC	>=1,000 mg/l
Inorganic Filler	Trade Secret	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
Bis(3-Aminopropyl) Ether of Diethylene Glycol	4246-51-9	Water flea	Experimental	48 hours	EC50	220 mg/l
Bis(3-Aminopropyl) Ether of	4246-51-9	Green algae	Experimental	72 hours	EC50	>500 mg/l

Diethylene Glycol						
Bis(3-Aminopropyl) Ether of Diethylene Glycol	4246-51-9	Golden Orfe	Experimental	96 hours	LC50	>1,000 mg/l
Bis(3-Aminopropyl) Ether of Diethylene Glycol	4246-51-9	Green algae	Experimental	72 hours	Effect Concentration 10%	5.4 mg/l
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	Water flea	Experimental	48 hours	EC50	15.2 mg/l
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	Ricefish	Experimental	96 hours	LC50	87.6 mg/l
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	Green Algae	Experimental	72 hours	EC50	28 mg/l
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	Green Algae	Experimental	72 hours	NOEC	9.8 mg/l
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	Water flea	Experimental	21 days	NOEC	4.7 mg/l
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	Green Algae	Experimental	72 hours	EC50	28 mg/l
Surface Treated Inorganic Filler	Trade Secret		Data not available or insufficient for classification			
Surface Treated Inorganic Filler	Trade Secret	Zebra Fish	Experimental	96 hours	LC50	>10,000 mg/l
Aluminium	7429-90-5		Data not available or insufficient for classification			
Tris(2,4,6-Dimethylaminomonomethyl)phenol	90-72-2	Grass Shrimp	Experimental	96 hours	LC50	718 mg/l
Tris(2,4,6-Dimethylaminomonomethyl)phenol	90-72-2	Common Carp	Experimental	96 hours	LC50	175 mg/l
Tris(2,4,6-Dimethylaminomonomethyl)phenol	90-72-2	Green algae	Experimental	72 hours	NOEC	6.25 mg/l
Tris(2,4,6-Dimethylaminomonomethyl)p	90-72-2	Green algae	Experimental	72 hours	EC50	84 mg/l

henol						
Formaldehyde, Polymer with Benzenamine, Hydrogenated	135108-88-2		Data not available or insufficient for classification			
Formaldehyde, Polymer with Benzenamine, Hydrogenated	135108-88-2	Green algae	Experimental	72 hours	Effect Concentration 10%	1.2 mg/l
Formaldehyde, Polymer with Benzenamine, Hydrogenated	135108-88-2	Green algae	Experimental	72 hours	EC50	43.94 mg/l
Formaldehyde, Polymer with Benzenamine, Hydrogenated	135108-88-2	Water flea	Experimental	48 hours	EC50	15.4 mg/l
Formaldehyde, Polymer with Benzenamine, Hydrogenated	135108-88-2	Guppy	Experimental	96 hours	LC50	63 mg/l
Methylenedi(Cyclohexylamine)	1761-71-3		Data not available or insufficient for classification			
Methylenedi(Cyclohexylamine)	1761-71-3	Water flea	Estimated	21 days	NOEC	4 mg/l
Methylenedi(Cyclohexylamine)	1761-71-3	Algae	Experimental	72 hours	Effect Concentration 10%	100 mg/l
Methylenedi(Cyclohexylamine)	1761-71-3	Golden Orfe	Experimental	96 hours	LC50	>100 mg/l
Methylenedi(Cyclohexylamine)	1761-71-3	Algae	Experimental	72 hours	EC50	2,164 mg/l
Methylenedi(Cyclohexylamine)	1761-71-3	Water flea	Experimental	48 hours	EC50	7.07 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Methylenedi(Cyclohexylamine)	1761-71-3	Estimated Photolysis		Photolytic half-life (in air)	3.30 hours (t 1/2)	Other methods
Aluminium	7429-90-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Treated Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

Epoxy Copolymer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Mineral Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Inorganic Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Synthetic Rubber	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	Experimental Biodegradation	28 days	CO2 evolution	49 % weight	OECD 301B - Modified sturm or CO2
Surface Treated Inorganic Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Methylenedi(Cyclohexylamine)	1761-71-3	Estimated Biodegradation	28 days	BOD	42 % weight	OECD 301C - MITI test (I)
Formaldehyde, Polymer with Benzenamine, Hydrogenated	135108-88-2	Experimental Biodegradation	28 days	BOD	0 % weight	Other methods
Formaldehyde, Polymer with Benzenamine, Hydrogenated	135108-88-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Tris(2,4,6-Dimethylaminomonomethyl)phenol	90-72-2	Experimental Biodegradation	28 days	BOD	4 % weight	OECD 301D - Closed bottle test
Bis(3-Aminopropyl) Ether of Diethylene Glycol	4246-51-9	Experimental Biodegradation	25 days	CO2 evolution	-8 % weight	OECD 301B - Modified sturm or CO2

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Mineral Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Surface Treated Inorganic Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

Formaldehyde, Polymer with Benzenamine, Hydrogenated	135108-88-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminium	7429-90-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Synthetic Rubber	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Treated Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Inorganic Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	Experimental BCF-Carp	42 days	Bioaccumulation factor	<2.7	OECD 305E - Bioaccumulation flow-through fish test
Epoxy Copolymer	Trade Secret	Estimated Bioconcentration		Bioaccumulation factor	2.9	Estimated: Bioconcentration factor
m-Xylene-.alpha.alpha'.Diamine	1477-55-0	Experimental BCF-Carp	42 days	Bioaccumulation factor	<2.7	OECD 305E - Bioaccumulation flow-through fish test
Methylenedi(Cyclohexylamine)	1761-71-3	Experimental Bioconcentration		Log Kow	2.03	Other methods
Methylenedi(Cyclohexylamine)	1761-71-3	Estimated Bioconcentration		Bioaccumulation factor	160	Estimated: Bioconcentration factor
Formaldehyde, Polymer with Benzenamine, Hydrogenated	135108-88-2	Experimental BCF-Carp	56 days	Bioaccumulation factor	≤ 219	OECD 305E - Bioaccumulation flow-through fish test
Tris(2,4,6-Dimethylaminomonomethyl)phenol	90-72-2	Experimental Bioconcentration		Log Kow	-0.66	Other methods
Bis(3-Aminopropyl) Ether of Diethylene Glycol	4246-51-9	Estimated Bioconcentration		Log Kow	-1.46	Estimated: Octanol-water partition coefficient

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
See Section 11.1 Information on toxicological effects

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

Packaging (that may or may not contain any residual substance) may be lawfully disposed of by householders or other consumers through public or commercial waste collection services.

SECTION 14: Transport Information

New Zealand Land Transport Rule: Dangerous Goods - Road/Rail Transport
UN No.: UN2735
Proper Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. , (Bis(3-aminopropyl)ether of diethylene glycol and Methylenedi(cyclohexylamine))
Class/Division: 8
Sub Risk: Not applicable.
Packing Group: II
Special Instructions: Limited quantity may apply
Hazchem Code:
IERG: 36

International Air Transport Association (IATA) - Air Transport
UN No.: UN2735
Proper Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. , (Bis(3-aminopropyl)ether of diethylene glycol and Methylenedi(cyclohexylamine))
Class/Division: 8
Sub Risk: Not applicable.
Packing Group: II

International Maritime Dangerous Goods Code (IMDG) - Marine Transport
UN No.: UN2735
Proper Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. , (Bis(3-aminopropyl)ether of diethylene glycol and Methylenedi(cyclohexylamine))
Class/Division: 8
Sub Risk: Not applicable.
Packing Group: II
Marine Pollutant: Not applicable.
Special Instructions: Limited quantity may apply

SECTION 15: Regulatory information

HSNO Approval number	HSR002658
Group standard name	Surface Coatings and Colourants (Corrosive) Group Standard 2006
HSNO Hazard classification	Refer to Section 2: Hazard identification

NZ Inventory of Chemicals (NZIoC) Status

All applicable chemical ingredients in this material are in compliance with NZIoC listing requirements.

HSNO Controls

Approved handler test certificate	Not required
Location and transit Depot certification test	Not required
Hazardous atmosphere zone	Not required
Fire extinguishers	Not required
Emergency response plan	100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a HSNO 6.1D, 6.5A, 6.5B, 8.2B, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for all other substances)
Secondary containment	100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a HSNO 6.1D, 6.5A, 6.5B, 8.2B, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for all other substances)
Tracking	Not required
Warning signage	100 L or 100 kg (for a HSNO 9.1A substance); or 250 L or 250 kg (for a HSNO 8.2B substance); or 1.000 L or 1,000 kg (for all other substances)

SECTION 16: Other information

Revision information:
No revision information

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