

SECTION 1: Identification

1.1 Product identifier

Trade name : Universal No-Tape 304-12T
Product form : Mixture

1.2 Other means of identification

No additional information available

1.3 Recommended use of the chemical and restrictions on use

Recommended use : Thermal barrier
Restrictions on use : All other uses not recommended above

1.4 Details of manufacturer or importer

Manufacturer

Azon USA Inc.
2204 Ravine Rd
Kalamazo Michigan 49004
USA
T 269-385-5942

Manufacturer

Azon Asia Inc.
168 Joongwon Ind Rd. Judeok
Chungju CB 27459 KOR
South Korea
T +82 (0) 43 840 0500

Importer

Altus NZ Ltd
Pukete Industrial Estate
53-69 Maui Street
Terapa Hamilton NZ2001 NZL

1.5. Emergency phone number

Emergency number : For 24/7 multilingual advice for spill, leak, fire, exposure, or accident call CHEMTREC at +65 3163 8374 (Regional, multilingual) +64 9-801 0034 (Auckland, Local) 0800 425 459 (Local, Toll-Free- Mobile Enabled) and provide CCN 2198

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Acute toxicity (oral), Category 4	H302
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Carcinogenicity, Category 2	H351
Specific target organ toxicity – Repeated exposure, Category 2	H373
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

Hazard pictograms (GHS NZ) :



Signal word (GHS NZ) :

Warning

Contains :

Diethylene glycol (7 – 16 %); Diethyl toluene diamine (3 – 8 %); Ethylene Glycol (2 – 5 %); Bis-(dodecylthio)-dimethylstannane (< 1.5 %); Carbon black (< 1.5 %); Aniline (< 1.5 %)

Hazard statements (GHS NZ) :

H302 - Harmful if swallowed
H317 - May cause an allergic skin reaction

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Prevention	: H319 - Causes serious eye irritation H351 - Suspected of causing cancer H373 - May cause damage to organs through prolonged or repeated exposure H411 - Toxic to aquatic life with long lasting effects P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe vapours. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P272 - Contaminated work clothing should not be allowed out of the workplace. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
Response	: P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. P330 - Rinse mouth. P302+P352 - IF ON SKIN: Wash with plenty of water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention. P314 - Get medical advice/attention if you feel unwell. P391 - Collect spillage.
Storage	: P405 - Store locked up.
Disposal	: P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GHS NZ
Diethylene Glycol-phthalic Anhydride Polymer	CAS-No.: 32472-85-8	8 – 18	Aquatic Chronic 3, H412
Diethylene glycol	CAS-No.: 111-46-6	7 – 16	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
Diethyl toluene diamine	CAS-No.: 68479-98-1	3 – 8	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Eye Irrit. 2, H319 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Hazardous to terrestrial vertebrates, H434
Ethylene Glycol	CAS-No.: 107-21-1	2 – 5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 STOT RE 2, H373
Carbon black	CAS-No.: 1333-86-4	< 1.5	Carc. 2, H351 STOT RE 1, H372

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Name	Product identifier	%	Classification according to GHS NZ
Aniline	CAS-No.: 62-53-3	< 1.5	Flam. Liq. 4, H227 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Hazardous to terrestrial vertebrates, H434
Bis-(dodecylthio)-dimethylstannane	CAS-No.: 51287-84-4	< 1.5	Acute Tox. 4 (Oral), H302 Aquatic Chronic 3, H412 Hazardous to terrestrial vertebrates, H434

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention. First aider: Pay attention to self-protection. Never give anything by mouth to an unconscious person. Give artificial respiration if necessary. Induce artificial respiration with mask fitted with one-way valve or other suitable device but not mouth-to-mouth.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If the victim is unconscious : Lay in a stable manner on victim's side. Induce artificial respiration with mask fitted with one-way valve or other suitable device; not mouth-to-mouth. Call a physician immediately. Symptoms may be delayed. Depending on the degree of exposure, periodic medical surveillance is required.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Immediately call a POISON CENTER/doctor.

4.2. Symptoms caused by exposure

Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: May be harmful if swallowed.
Chronic symptoms	: May cause damage to organs.

4.3. Medical attention and special treatment

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide. Alcohol-resistant foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.

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- General measures : Avoid all personal contact including breathing in the vapours, spray, mist, gas. Do not take actions involving personal risks. Absorb spillage to prevent material damage. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.
- Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon monoxide. Carbon dioxide. Nitrogen oxides.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Use self-contained breathing apparatus and chemically protective clothing. Full face piece respirator.
- Hazchem Code : * 3Z
- EAC code : •3Z - •3Z

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid all personal contact including breathing in the vapours, spray, mist, gas. Do not take actions involving personal risks. Absorb spillage to prevent material damage. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.

6.1.1. For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Evacuate the danger area. If outdoors, move to an area upwind of the danger area. If possible without taking personal risks, ventilate area, remove ignition sources. Do not breathe vapours, spray, mist, gas. Avoid contact with skin and eyes. Prevent other non-emergency personnel from entering the danger area.

6.1.2. For emergency responders

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Evacuate personnel to a safe area. Stop leak if safe to do so. Ventilate spillage area.

6.2. Environmental precautions

Avoid release to the environment. Do not let the product reach soil, drains, sewers, or surface and ground water. Notify authorities if product enters sewers or public waters.

6.3. Methods and materials for containment and cleaning up

- For containment : Stop leak without risks if possible. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Contain with non-combustible inert absorbent. Collect spillage.
- Methods for cleaning up : Take up in non-combustible inert absorbent and place into container for disposal. Contaminated absorbent material may pose the same hazard as the spilt product. Decontaminate surfaces and equipment with water and detergent. Notify authorities if product enters sewers or public waters. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Ensure good ventilation of the work station. Do not breathe vapours, mist, spray, gas.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.

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Storage conditions	: Protect from sunlight. Store in a cool, well-ventilated place. Store carefully closed containers upright to prevent any leaks. Store locked up. Use appropriate container to avoid environmental contamination.
Incompatible materials	: Metals. Strong oxidizing agents.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

Diethylene glycol (111-46-6)	
New Zealand - Occupational Exposure Limits	
Local name	Diethylene glycol
WES-TWA (OEL TWA)	44 mg/m ³ ifv (Inhalable Fraction and Vapour)
	10 ppm ifv (Inhalable Fraction and Vapour)
WES-STEL (OEL STEL)	176 mg/m ³ ifv (Inhalable Fraction and Vapour)
	40 ppm ifv (Inhalable Fraction and Vapour)
Regulatory reference	Workplace Exposure Standards and Biological Exposure Indices, 14th Edition
Ethylene Glycol (107-21-1)	
New Zealand - Occupational Exposure Limits	
Local name	Ethylene glycol (vapour and mist)
WES-C (OEL C)	127 mg/m ³
	50 ppm
Regulatory reference	Workplace Exposure Standards and Biological Exposure Indices, 14th Edition
Carbon black (1333-86-4)	
New Zealand - Occupational Exposure Limits	
Local name	Carbon black
WES-TWA (OEL TWA)	3 mg/m ³
Remark (NZ)	carcinogen category 2 (Suspected human carcinogen)
Regulatory reference	Workplace Exposure Standards and Biological Exposure Indices, 14th Edition

Exposure limit values for the other components

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

Appropriate engineering controls	: Use general ventilation, local exhaust ventilation or process enclosure to keep the airborne concentrations below the permissible exposure limits.
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8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment	: Personal protective equipment should be chosen according to national standards and in discussion with the supplier of the protective equipment. Wear recommended personal protective equipment.
Hand protection	: Wear protective gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing. Body protection should be chosen depending on activity and possible exposure
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment

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Personal protective equipment symbol(s)



Environmental exposure controls

: Take measures to reduce or limit air emissions and releases to soil and the aquatic environment.

SECTION 9: Physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid.
Colour	: Clear purple to black.
Odour	: Slight
Odour threshold	: No additional information available
pH	: No additional information available
Evaporation rate	: No additional information available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point / Freezing point	: Melting point: Not applicable
Boiling point	: No data available
Flash point	: > 93.33 °C / 200 °F
Auto-ignition temperature	: No data available
Flammability	: Not applicable
Vapour pressure	: No additional information available
Relative density	: No additional information available
Density	: Relative density: 1.072 – 1.084
Solubility	: No additional information available
Partition coefficient n-octanol/water (Log Pow)	: Not applicable.
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Explosive limits	: No additional information available
Minimum ignition energy	: No data available

SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions of use.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Incompatible materials.
Incompatible materials	: Metals. Oxidizing agents.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Nitrogen oxides. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Toxicity

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Universal No-Tape 304-12T	
ATE NZ (Oral)	547.706 mg/kg bodyweight
Unknown acute toxicity (GHS NZ)Unknown acute toxicity (GHS NZ)	71.3% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 93.4% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

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Diethylene Glycol-phthalic Anhydride Polymer (32472-85-8)	
LD50 dermal rat	> 2000 mg/kg
Diethylene glycol (111-46-6)	
LD50 oral rat	12000 mg/kg
LD50 dermal rabbit	11890 mg/kg
Ethylene Glycol (107-21-1)	
LD50 oral rat	4700 mg/kg bodyweight
LD50 dermal rat	9530 mg/kg bodyweight
Diethyl toluene diamine (68479-98-1)	
LD50 oral rat	472 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	> 2.45 mg/l
Carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight
Aniline (62-53-3)	
LD50 oral rat	442 mg/kg
LD50 dermal rabbit	836 mg/kg
LC50 Inhalation - Rat [ppm]	478 ppm
LC50 Inhalation - Rat (Dust/Mist)	1.82 mg/l/4h
LC50 Inhalation - Rat (Vapours)	0.95 mg/l/4h
Bis-(dodecylthio)-dimethylstannane (51287-84-4)	
LD50 oral rat	1150 mg/kg bodyweight
Skin corrosion/irritation	: Not classified
Ethylene Glycol (107-21-1)	
Skin corrosion/irritation, rabbit	Not irritating to skin
Carbon black (1333-86-4)	
Skin corrosion/irritation, rabbit	Not irritating
Serious eye damage/irritation	: Causes serious eye irritation.
Diethylene glycol (111-46-6)	
Serious eye damage/irritation, rabbit	Slightly irritating
Ethylene Glycol (107-21-1)	
Serious eye damage/irritation, rabbit	<40% Irritating to eyes (Fully reversible effects within 7 days of observation)
Carbon black (1333-86-4)	
Serious eye damage/irritation, rabbit	Not irritating
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Ethylene Glycol (107-21-1)	
Guinea pig maximization test	Not sensitive
Skin sensitization, human	Not sensitive

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Carbon black (1333-86-4)	
Local Lymph Node Assay	Not sensitive
Aniline (62-53-3)	
Skin sensitization, Local Lymph Node Assay, mouse	Sensitizer
Germ cell mutagenicity	: Not classified
Ethylene Glycol (107-21-1)	
Additional information	Dominant lethal test, Rat- Negative
Carcinogenicity	: Suspected of causing cancer.
Diethylene glycol (111-46-6)	
NOAEL (chronic, oral, animal/male, 2 years)	1210 mg/kg bodyweight
NOAEL (chronic, oral, animal/female, 2 years)	1160 mg/kg bodyweight
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
Diethylene glycol (111-46-6)	
LOAEL (oral, rat, 90 days)	40000 mg/kg bodyweight
Ethylene Glycol (107-21-1)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Diethyl toluene diamine (68479-98-1)	
LOAEL (dermal, rat/rabbit, 90 days)	≥ 10 mg/kg bodyweight
NOAEL (dermal, rat/rabbit, 28 days)	100 mg/kg bw/day
NOAEL (oral, rat, 90 days)	21 mg/kg bw/day
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Carbon black (1333-86-4)	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.0071 mg/l air
NOAEL (oral, rat, 90 days)	> 1000 mg/kg bodyweight
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.0011 mg/l air
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aniline (62-53-3)	
LOAEC (inhalation, rat, vapour, 90 days)	0.0326 mg/l air
NOAEC (inhalation, rat, vapour, 90 days)	0.0092 mg/l air
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Aniline (62-53-3)	
Viscosity, kinematic	4.265 mm ² /s

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general : Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Not classified.

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Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.
Soil toxicity	: Not classified
Terrestrial vertebrate toxicity	: Not classified
Terrestrial invertebrate toxicity	: Not classified

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EC50 - Crustacea [1]	11.46 mg/l
Partition coefficient n-octanol/water (Log Pow)	Not applicable.
Diethylene Glycol-phthalic Anhydride Polymer (32472-85-8)	
LC50 - Fish [1]	≥ 100 mg/l
ErC50 algae	157.4 mg/l
Partition coefficient n-octanol/water (Log Pow)	0.9 – 1.9
	> 2000 mg/kg
Diethylene glycol (111-46-6)	
LC50 - Fish [1]	75200 mg/l
NOEC (chronic)	≥ 1000 mg/l
Partition coefficient n-octanol/water (Log Pow)	-1.47
LD50 dermal rabbit	11890 mg/kg
LD50 oral rat	12000 mg/kg
Ethylene Glycol (107-21-1)	
LC50 - Fish [1]	> 72860 mg/l
EC50 - Crustacea [1]	> 100 mg/l
NOEC (chronic)	≥ 1000 mg/l
NOEC chronic fish	32000 mg/l (7 days)
NOEC chronic crustacea	24000 ml/l (48h)
	9530 mg/kg bodyweight
LD50 oral rat	4700 mg/kg bodyweight
Diethyl toluene diamine (68479-98-1)	
LC50 - Fish [1]	> 106 mg/l
EC50 - Crustacea [1]	5.8 mg/l
ErC50 algae	104 mg/l
Partition coefficient n-octanol/water (Log Pow)	1.38
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.12
	> 2000 mg/kg
LD50 oral rat	472 mg/kg
Carbon black (1333-86-4)	
EC50 - Crustacea [1]	> 1000 mg/l
EC50 72h - Algae [1]	> 10000 mg/l
EC50 72h - Algae [2]	> 10000 mg/l
LD50 dermal rabbit	> 2000 mg/kg bodyweight
LD50 oral rat	> 8000 mg/kg bodyweight

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Aniline (62-53-3)	
LC50 - Fish [1]	10.6 mg/l
EC50 - Crustacea [1]	0.1 mg/l
EC50 72h - Algae [1]	175 mg/l
ErC50 algae	175 mg/l
NOEC (chronic)	0.016 mg/l
NOEC chronic fish	0.39 mg/l
NOEC chronic crustacea	0.004 mg/l
BCF - Fish [1]	2.6 l/kg
Partition coefficient n-octanol/water (Log Pow)	0.91
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.49136169 – 2.95904139
LD50 dermal rabbit	836 mg/kg
LD50 oral rat	442 mg/kg

Bis-(dodecylthio)-dimethylstannane (51287-84-4)	
EC50 - Crustacea [1]	32 mg/l
EC50 72h - Algae [1]	270 mg/l
EC50 72h - Algae [2]	120 mg/l
LD50 oral rat	1150 mg/kg bodyweight

12.2. Persistence and degradability

Universal No-Tape 304-12T	
Persistence and degradability	Not established.

Diethylene Glycol-phthalic Anhydride Polymer (32472-85-8)	
Persistence and degradability	Not rapidly degradable

Diethylene glycol (111-46-6)	
Persistence and degradability	Not rapidly degradable

Ethylene Glycol (107-21-1)	
Persistence and degradability	Not rapidly degradable

Diethyl toluene diamine (68479-98-1)	
Persistence and degradability	Not rapidly degradable.

Carbon black (1333-86-4)	
Persistence and degradability	Not rapidly degradable

Aniline (62-53-3)	
Persistence and degradability	Rapidly degradable

Bis-(dodecylthio)-dimethylstannane (51287-84-4)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

Universal No-Tape 304-12T	
Partition coefficient n-octanol/water (Log Pow)	Not applicable.

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Universal No-Tape 304-12T	
Bioaccumulative potential	Not established.
Diethylene Glycol-phthalic Anhydride Polymer (32472-85-8)	
Partition coefficient n-octanol/water (Log Pow)	0.9 – 1.9
Diethylene glycol (111-46-6)	
Partition coefficient n-octanol/water (Log Pow)	-1.47
Ethylene Glycol (107-21-1)	
Bioaccumulative potential	Does not bioaccumulate.
Diethyl toluene diamine (68479-98-1)	
Partition coefficient n-octanol/water (Log Pow)	1.38
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.12
Aniline (62-53-3)	
BCF - Fish [1]	2.6 l/kg
Partition coefficient n-octanol/water (Log Pow)	0.91
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.49136169 – 2.95904139

12.4. Mobility in soil

Universal No-Tape 304-12T	
Mobility in soil	No additional information available
Partition coefficient n-octanol/water (Log Pow)	Not applicable.
Diethylene Glycol-phthalic Anhydride Polymer (32472-85-8)	
Partition coefficient n-octanol/water (Log Pow)	0.9 – 1.9
Diethylene glycol (111-46-6)	
Partition coefficient n-octanol/water (Log Pow)	-1.47
Diethyl toluene diamine (68479-98-1)	
Partition coefficient n-octanol/water (Log Pow)	1.38
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.12
Aniline (62-53-3)	
Mobility in soil	8 – 497.7
Partition coefficient n-octanol/water (Log Pow)	0.91
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.49136169 – 2.95904139

12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

SECTION 13: Disposal considerations

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.

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Product/Packaging disposal recommendations	: Dispose of this material and its container at hazardous or special waste collection point. Refer to all applicable national, international and local regulations or provisions.
Ecological information	: Avoid release to the environment.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
3082	3082	3082
14.2. UN Proper Shipping Name		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diethyl toluene diamine)	Environmentally hazardous substance, liquid, n.o.s. (Diethyl toluene diamine)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diethyl toluene diamine)
Transport document description		
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diethyl toluene diamine), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Diethyl toluene diamine), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diethyl toluene diamine), 9, III
14.3. Transport hazard class(es)		
9	9	9
		
14.4. Packing group		
III	III	III
14.5. Environmental hazards		
Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available		

14.6. Special precautions for user

Transport by road and rail

Special provisions (UN RTDG)	: 274, 331, 335, 375
Limited quantities (UN RTDG)	: 5L
Excepted quantities (UN RTDG)	: E1
Packing instruction (UN RTDG)	: P001, IBC03, LP01
Special packing provisions (UN RTDG)	: PP1
Portable tank and bulk container special instructions (UN RTDG)	: T4
Portable tank and bulk container special provisions (UN RTDG)	: TP1, TP29

Transport by sea

Special provisions (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29

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according to the Hazardous Substances and New Organisms Act (1996)

EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage) : S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS
Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L
ERG code (IATA) : 9L

14.7. Transport in bulk according to IMO instruments

Not applicable

14.8. Hazchem or Emergency Action Code

EAC code : •3Z.
Hazchem Code : * 3Z

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Diethylene glycol (111-46-6)

Hazardous Substances and New Organisms Act

HSNO Approval Number	HSR002709
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Diethyl toluene diamine (68479-98-1)

Hazardous Substances and New Organisms Act

HSNO Approval Number	HSR004082
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Aniline (62-53-3)

Hazardous Substances and New Organisms Act

HSNO Approval Number	HSR000976
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15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Issue date : 8/04/2024
Data sources : SDS prepared by CHEMTREC.

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Abbreviations and acronyms	: ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road ATE - Acute Toxicity Estimate BCF - Bioconcentration factor BLV - Biological limit value BOD - Biochemical oxygen demand (BOD) COD - Chemical oxygen demand (COD) DMEL - Derived Minimal Effect level DNEL - Derived-No Effect Level EC-No. - European Community number EC50 - Median effective concentration EN - European Standard IARC - International Agency for Research on Cancer IATA - International Air Transport Association IMDG - International Maritime Dangerous Goods LC50 - Median lethal concentration LD50 - Median lethal dose LOAEL - Lowest Observed Adverse Effect Level NOAEC - No-Observed Adverse Effect Concentration NOAEL - No-Observed Adverse Effect Level NOEC - No-Observed Effect Concentration OECD - Organisation for Economic Co-operation and Development OEL - Occupational Exposure Limit PBT - Persistent Bioaccumulative Toxic PNEC - Predicted No-Effect Concentration RID - Regulations concerning the International Carriage of Dangerous Goods by Rail SDS - Safety Data Sheet STP - Sewage treatment plant ThOD - Theoretical oxygen demand (ThOD) TLM - Median Tolerance Limit VOC - Volatile Organic Compounds CAS-No. - Chemical Abstract Service number N.O.S. - Not Otherwise Specified vPvB - Very Persistent and Very Bioaccumulative ED - Endocrine disrupting properties
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Full text of H-statements	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 4	Flammable liquids, Category 4
Hazardous to terrestrial vertebrates	Hazardous to terrestrial vertebrates
Muta. 2	Germ cell mutagenicity, Category 2

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Full text of H-statements	
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
H227	Combustible liquid
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H341	Suspected of causing genetic defects
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H434	Hazardous to terrestrial vertebrates

Safety Data Sheet (SDS), New Zealand

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.