

# SAFETY DATA SHEETS (SDS)

## Enviro 950 TC Part B



Hazard Identifiers

Version: 3

Issued by: Envirosystems Technologies

Date of Issue: March 2024



## SECTION 1 – IDENTIFICATION OF MATERIAL & SUPPLIER

- 1.1 Product Name:** Enviro 950 TC Part B  
**Manufacturer's Product Code:** N/A
- 1.2 Recommended Use:** Part B of a two/three component coating
- 1.3 Company:** Envirosystems Technologies Pty Ltd  
**Address:** 295 Princes Highway St Peters, NSW 2044.  
**Website:** [www.envirosystems.com.au](http://www.envirosystems.com.au)  
**Telephone:** +61 2 85958699 (business hours)  
**Fax:** +61 2 85958660
- 1.4 Emergency Telephone:** Info Safe – 1800 638 556, Poisons Centre – 131126
- Other Information:** All information in this SDS is to the best of our knowledge at time of publication. Users of this product should fully review this SDS prior to use to ensure best safety practices. Further information and or clarification can be obtained by contacting our technical department on the above telephone number.

## SECTION 2 – HAZARDS IDENTIFICATION

- 2.1 Hazard Classification:** Classified as **Hazardous** according to WHS Regulations, Australian GHS criteria and a **Non-Dangerous Goods** according to the Australian Dangerous Goods Code.

Class	Category
Skin Corrosion / irritation	3
Skin Sensitization	1B
Specific target organ toxicity (Single)	3
Hazardous to the aquatic environment - Chronic	3

- 2.2 Label Elements**



Signal word

Warning

H-code	Hazard Statements
H316	Causes mild skin irritation
H317	May cause an allergic skin reaction
H351	Suspected of causing cancer
H335	May cause respiratory irritation
H412	Harmful to aquatic life with long lasting effects
P-Code	Precautionary Statement - Prevention
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.

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P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273	Avoid release to the environment
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
<b>P-Code</b>	<b>Precautionary Statement - Response</b>
P312	Call a POISON CENTER or doctor/ physician if you feel unwell.
P304, P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303, P361, P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P333, P313	If skin irritation or rash occurs: Get medical advice/ attention.
P337, P313	If eye irritation persists: Get medical advice/ attention.
P362, P364	Take off contaminated clothing and wash it before reuse
P370, P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
<b>P-Code</b>	<b>Precautionary Statement - Storage</b>
P403, P233	Store in a well-ventilated place. Keep container tightly closed.
<b>P-Code</b>	<b>Precautionary Statement - Disposal</b>
P501	Dispose of contents / containers to hazardous or special waste collection point. In accordance with local regulation

### 2.3 Other Hazards

None known

## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

### 3.2 Mixtures

See section below for Mixtures

CAS No.	Material	Content %
136210-32-7	Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester	10-30
136210-30-5	Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester	20-40
623-91-6	Fumaric acid diethyl ester	<2

## SECTION 4 – FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General Advice:

Soiled, soaked clothing and shoes must be immediately removed, decontaminated

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and disposed of.

### **Ingestion:**

DO NOT induce the patient to vomit, medical advice is required. Take victim immediately to hospital. Keep respiratory tract clear. Do not give milk or alcoholic beverages

### **Inhalation:**

Take the person into the fresh air and keep him warm, let him rest; if there is difficulty in breathing, medical advice is required.

### **Eye Contact:**

Hold the eyes open and rinse with preferably lukewarm water for a sufficiently long period of time (at least 10 minutes). Contact an ophthalmologist.

### **Skin Contact:**

In the event of contact with the skin, preferably wash with a cleanser based on polyethylene glycol or with plenty of warm water and soap. Consult a doctor in the event of a skin reaction.

- |            |  |  |
|------------|--|--|
| <b>4.2</b> | <b>Most important symptoms and effects, both acute and delayed</b> | Any relevant information can be found in other parts of this section and in sections 2 and 11. |
| <b>4.3</b> | <b>Advice for doctor</b>   | Treat symptomatically  |

## SECTION 5 – FIRE FIGHTING MEASURES

- |            |  |   |
|------------|--|---|
| <b>5.1</b> | <b>Extinguishing media</b>                                   | <p>Suitable extinguishing media:</p> <p>Carbon dioxide (CO<sub>2</sub>), Foam, extinguishing powder, in cases of larger fires, water spray should be used.</p> <p>Unsuitable extinguishing media that may not be used for safety reasons:</p> <p>High volume water jet</p>  |
| <b>5.2</b> | <b>Special hazards arising from the substance or mixture</b> | Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes. Fire in vicinity poses risk of pressure build-up and rupture. Containers at risk from fire should be cooled with water and, if possible, removed from the danger area. |
| <b>5.3</b> | <b>Advice for firefighters</b>                               | Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes. |

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

- |            |  |  |
|------------|--|--|
| <b>6.1</b> | <b>Personal precautions, protective equipment and emergency procedures</b> | Secure the area. Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. If material is released indicate risk of slipping. Do not walk through spilled material. |
| <b>6.2</b> | <b>Environmental precautions</b>   | Do not discharge into sewers or waterways or soil.   |
| <b>6.3</b> | <b>Methods and material for containment and cleaning up</b>                | Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.   |

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### 6.4 Reference to other sections

Relevant information in other sections has to be considered. This applies in particular for information given on personal protective equipment (section 8) and on disposal (section 13).

## SECTION 7 – HANDLING & STORAGE

### 7.1 Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

The personal protective measures described in section 8 must be observed. The precautions required in the handling of isocyanates must be taken. Avoid contact with skin and eyes and the inhalation of vapor.

### 7.2 Conditions for safe storage

#### Storage Requirements:

Keep container tightly closed, store in a cool, dry area

#### Storage Incompatibility:

Not known

#### Suitable containers:

Original packing as recommended by manufacturer.

#### Temperature Conditions:

5° to 35° C

#### Protection from weather:

Store undercover and away from frost and moisture

### 7.3 Specific end use(s)

Once mixed with part A and applied, produces a hard wearing, durable surface suitable for commercial and industrial applications.

### 7.4 Regulations and standards (Australia):

N/A

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Exposure limits:

Ingredient	STEL	TWA	
N/A			

### 8.2 Exposure controls

#### General protection and hygiene measures:

Avoid exposure. Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Do not eat, drink or smoke when handling. Wash hands at the end of work and before eating. Keep working clothes separately. Remove contaminated, soaked clothing immediately. Clean work areas regularly. 1st monitor air quality should be checked regularly in accordance with AS/NZS 1715: Selection, use and maintenance of respiratory protective equipment (AS/NZS 1715). Then use dilution ventilation systems to dilute and displace contaminated air with fresh air supplied to the work area by mechanical exhaust fans (make sure explosion and spark proof equipment as solvents are used) or natural air currents through doors, windows or other openings in the building..

#### Personal protection equipment:

##### Respiratory protection

When engineering controls are not effective in controlling airborne exposure, then respiratory equipment should be used to protect against airborne contaminant (organic filter of sufficient capacity eg 3M™ Organic Vapor Cartridges, 6051). The appropriate respiratory equipment can be determined based upon actual airborne

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concentration and **can vary** depending on individual circumstances.

### *Eye protection*

Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.

### *Hand protection*

Suitable materials for safety gloves; EN 374:

Fluorinated rubber - FKM: thickness  $\geq 0,4\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Laminate glove - PE/EVAL/PE; breakthrough time  $\geq 480\text{ min}$ .

Recommendation: contaminated gloves should be disposed of.

### *Skin protection*

Low static overalls and PVC apron for mixing chemicals. Barrier are ok in some circumstances. Full body spray suit is required for spraying.

### *Other Information*

Use barrier creams to protect skin from contact with the material. Always wash hands before smoking, eating, drinking or using the toilet and after finishing work. Observe the usual precautions when handling chemicals.

### 8.3 Further information for system design and engineering measures

Ventilation is recommended under normal use conditions. State regulations on speed and direction of airflow away from operators must be observed. Keep containers closed when not in use.

## SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

9.1	<b>Odour:</b>	Not Available
	<b>Colour:</b>	Grey and Pastel shades
	<b>Physical State:</b>	Liquid
	<b>Flash Point:</b>	$>200^{\circ}\text{C}$
	<b>Boiling Point:</b>	Not Available
	<b>Melting Point:</b>	Not Available
	<b>Specific Gravity:</b>	$1.62\text{ g/cm}^3$
	<b>pH:</b>	N/A
	<b>Solubility in Water (g/L):</b>	Insoluble
	<b>Flammability:</b>	Not Available
	<b>Lower Limit:</b>	Not Available
	<b>Higher Limit:</b>	Not Available
	<b>Vapour Pressure:</b>	Not Available
	<b>Vapour Density (Air = 1)</b>	Not Available
	<b>Auto-ignition temperature</b>	Not Available
	<b>Ignition temperature</b>	Not Available
	<b>Decomposition temperature</b>	Not Available
9.2	<b>Other information</b>	Not available

## SECTION 10 – STABILITY AND REACTIVITY

10.1	<b>Reactivity; Chemical stability;</b>	If stored and handled in accordance with standard industrial practices not
-3	<b>Possibility of hazardous reactions</b>	hazardous reactions are known. Vapours may form explosive mixture with air.
10.4	<b>Conditions to avoid</b>	Heat, flames and sparks
10.5	<b>Incompatible materials</b>	Strong oxidizing agents

**10.6 Hazardous decomposition products**

No hazardous decomposition products when stored and handled correctly. But Oxides of carbon and other possibly toxic fumes from fire.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

**Acute Toxicity/Effects**

**Acute toxicity, oral**

*Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

D50 rat: > 2.000 mg/kg Method: Directive 67/548/EEC, Annex V, B.1.

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester*

LD50 rat: > 2.000 mg/kg Method: Directive 67/548/EEC, Annex V, B.1. oxicological studies of a comparable product.

**Acute toxicity, dermal**

*Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

LD50 rat: > 2.000 mg/kg Method: Directive 67/548/EEC, Annex V, B.3.

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester*

LD50 rat: > 2.000 mg/kg Method: Directive 67/548/EEC, Annex V, B.3.

Toxicological studies of a comparable product.

**Acute toxicity, inhalation**

*Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

LC50 rat, male/female: > 4,224 mg/l, 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester*

LC50 rat, male/female: > 4,224 mg/l, 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Toxicological studies of a comparable product.

**Primary skin irritation:**

*Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

Species: rabbit Result: slight irritant Classification: No skin irritation Method: OECD Test Guideline 404

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester*

Species: rabbit Result: slight irritant Classification: No skin irritation Method: OECD Test Guideline 404 Toxicological studies of a comparable product.

**Serious eye damage/eye irritation:**

*Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

Species: rabbit Result: slight irritant Classification: No eye irritation Method: OECD Test Guideline 405

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester*

Species: rabbit Result: slight irritant Classification: No eye irritation Method: OECD Test Guideline 405 Toxicological studies of a comparable product.

**Skin sensitization**

*Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

Magnusson/Kligmann (maximizing test) Species: Guinea pig Result: positive Classification: H317: May cause sensitization by skin contact (Sub cat. 1B)

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Method: OECD Test Guideline 406

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester*  
Magnusson/Kligmann (maximizing test) Species: Guinea pig Result: positive  
Classification: H317: May cause sensitization by skin contact (Sub cat. 1B)  
Method: OECD Test Guideline 406 Toxicological studies of a comparable product.

### Respiratory sensitization

Toxicological studies on the product are not yet available

## Chronic Toxicity/Effects

### Repeated dose toxicity

*Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

NOAEL: 1.000 mg/kg Application Route: Subacute oral toxicity

Species: rat Dose Levels: 0 - 40 - 200 - 1000 mg/kg Method: OECD Test Guideline 407. Evidence of damage to organs other than the organs of respiration was not found.

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester*

NOAEL: 1.000 mg/kg Application Route: Subacute oral toxicity

Species: rat Dose Levels: 0 - 40 - 200 - 1.000 mg/kg Method: OECD Test Guideline 407 Toxicological studies of a comparable product.

### Genetic toxicity in vitro

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester*

Test type: Salmonella/microsome test (Ames test) Result: No indication of mutagenic effects. Method: OECD Test Guideline 471 Toxicological studies of a comparable product.

Test type: Chromosome aberration test in vitro Result: negative Method: OECD Test Guideline 473 Toxicological studies of a comparable product.

*Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

Test type: Salmonella/microsome test (Ames test) Result: No indication of mutagenic effects. Method: OECD Test Guideline 471

Test type: Chromosome aberration test in vitro

Result: negative Method: OECD Test Guideline 473

### Genetic toxicity in vivo

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester*

Test type: Micronucleus test Species: Mouse Result: negative Method: OECD Test Guideline 474 Toxicological studies of a comparable product.

*Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

Test type: Micronucleus test species: Mouse Result: negative Method: OECD Test Guideline 474

### Carcinogenicity

No data available

### Reproductive toxicity/ Teratogenicity

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester*

NOAEL (teratogenicity): 1.000 mg/kg

NOAEL (maternal): 1.000 mg/kg

NOAEL (developmental toxicity): 1.000 mg/kg

Species: rat, female



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Application Route: Oral  
Dose Levels: 0 - 100 - 300 - 1000 mg/kg  
Method: OECD Test Guideline 414  
Studies of a comparable product.

*Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

NOAEL (teratogenicity): 1.000 mg/kg  
NOAEL (maternal): 1.000 mg/kg  
NOAEL (developmental toxicity): 1.000 mg/kg  
Species: rat, female  
Application Route: Oral  
Dose Levels: 0 - 100 - 300 - 1000 mg/kg  
Method: OECD Test Guideline 414

**STOT evaluation – one-time exposure**  
No data available.

**STOT evaluation – repeated exposure**  
No data available.

**Aspiration toxicity:**  
No data available.

**Toxicology Assessment:**  
Sensitization: May cause sensitization by skin contact.

**Additional:** None.

## SECTION 12 – ECOLOGICAL INFORMATION

### 12.1 Toxicity

**Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester**

*Acute Fish toxicity*

LC50 66 mg/l Species: Danio rerio (zebra fish) Exposure duration: 96 h Method: OECD Test Guideline 203 Ecotoxicological reports on a comparable product

*Acute toxicity for daphnia*

EC50 88,6 mg/l Species: Daphnia magna (Water flea) Exposure duration: 48 h Method: Proposal from the German UBA May 1984 Studies of a comparable product.

*Chronic toxicity to daphnia*

NOEC (Reproduction) 0,01 mg/l Species: Daphnia magna (Water flea) Exposure duration: 21 d Method: Directive 67/548/EEC, Annex V, C.20. Studies of a comparable product.

*Acute toxicity for algae*

ErC50 113 mg/l Species: scenedesmus subspicatus Exposure duration: 72 h Method: Directive 67/548/EEC, Annex V, C.3. Ecotoxicological reports on a comparable product

*Toxicity to soil dwelling organisms*

NOEC (mortality)  $\geq$  1.000 mg/kg Species: Eisenia fetida (earthworms) Exposure duration: 14 d Method: OECD Test Guideline 207 Studies of a comparable product.

*Toxicity to terrestrial plants*



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NOEC (seedling emergence)  $\geq$  100 mg/kg Species: Allium cepa (onion) Test period: 14 d Method: OECD Test Guideline 208 Studies of a comparable product.

NOEC (seedling emergence)  $\geq$  100 mg/kg Species: Avena sativa (oats) Test period: 14 d Method: OECD Test Guideline 208 Studies of a comparable product.

NOEC (seedling emergence)  $\geq$  100 mg/kg Species: Brassica napus (rape) Test period: 14 d Method: OECD Test Guideline 208 Studies of a comparable product.

### **Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester**

#### *Acute Fish toxicity*

LC50 66 mg/l Species: Danio rerio (zebra fish) Exposure duration: 96 h Method: OECD Test Guideline 203

#### *Acute toxicity for daphnia*

EC50 88,6 mg/l Species: Daphnia magna (Water flea) Exposure duration: 48 h Method: Proposal from the German UBA May 1984

#### *Chronic toxicity to daphnia*

NOEC (Reproduction) 0,01 mg/l Species: Daphnia magna (Water flea) Exposure duration: 21 d Method: Directive 67/548/EEC, Annex V, C.20.

#### *Acute toxicity for algae*

ErC50 113 mg/l Species: scenedesmus subspicatus Exposure duration: 72 h Method: Directive 67/548/EEC, Annex V, C.3.

#### *Toxicity to soil dwelling organisms*

NOEC (mortality)  $\geq$  1.000 mg/kg Species: Eisenia fetida (earthworms) Exposure duration: 14 d Method: OECD Test Guideline 207

#### *Toxicity to terrestrial plants*

NOEC (seedling emergence)  $\geq$  100 mg/kg Species: Avena sativa (oats) Test period: 14 d Method: OECD Test Guideline 208

NOEC (seedling emergence)  $\geq$  100 mg/kg Species: Allium cepa (onion) Test period: 14 d Method: OECD Test Guideline 208

NOEC (seedling emergence)  $\geq$  100 mg/kg Species: Brassica napus (rape) Test period: 14 d Method: OECD Test Guideline 208

### **Ecotoxicology Assessment**

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester and Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

Acute aquatic toxicity: Harmful to aquatic life.

Chronic aquatic toxicity: Very toxic to aquatic life with long lasting effects.

Impact on Sewage Treatment: Because of the low bacterial toxicity, there is no risk of an adverse effect on the performance of biological waste water treatment plants.

### **Microorganisms/Effect on sludge**

*Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*  
EC50 3.110 mg/l Species: activated sludge Exposure duration: 3 h Method: ISO test method 8192-1986 E Ecotoxicological reports on a comparable product

*Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester*

EC50 3.110 mg/l Species: activated sludge Exposure duration: 3 h Method: ISO test method 8192-1986 E

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### 12.2 Persistence and degradability

#### **Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester**

##### *Biodegradability*

Biodegradation: 13 %, 28 d, i.e. not readily degradable Method: OECD Test Guideline 301 F Ecotoxicological reports on a comparable product

Biodegradation: 0 %, 28 d, i.e. not inherently degradable Method: OECD Test Guideline 302 C Ecotoxicological studies of the product

##### *Stability in water*

Half life: 655 h at 25 °C (pH: 4) Method: OECD Test Guideline 111 Studies of a comparable product.

Half life: 25,4 h at 25 °C (pH: 7) Method: OECD Test Guideline 111 Studies of a comparable product.

Half life: 16,8 h at 25 °C (pH: 9) Method: OECD Test Guideline 111 Studies of a comparable product.

##### *Volatility (Henry's Law constant)*

Calculated value = 0,01 Pa\*m<sup>3</sup>/mol The substance has to be scored as non-volatile from water.

#### **Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester**

##### *Biodegradability*

Biodegradation: 13 %, 28 d, i.e. not readily degradable Method: OECD Test Guideline 301 F

Biodegradation: 6 %, 28 d, i.e. not inherently degradable Method: OECD Test Guideline 302 C

##### *Stability in water*

Test type: Hydrolysis Half life: 655 h at 25 °C (pH: 4) Method: OECD Test Guideline 111

Test type: Hydrolysis Half life: 25,4 h at 25 °C (pH: 7) Method: OECD Test Guideline 111

Test type: Hydrolysis Half life: 16,8 h at 25 °C (pH: 9) Method: OECD Test Guideline 111

##### *Volatility (Henry's Law constant)*

Calculated value = 0,24 Pa\*m<sup>3</sup>/mol The substance has to be scored as being slightly volatile from water.

### 12.3 Bioaccumulative potential

#### **Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester**

Bioconcentration factor (BCF): 1.872 Species: value calculated The substance hydrolyzes rapidly in water. An accumulation in aquatic organisms is not to be expected.

Partition coefficient (n-octanol/water) log Pow: ca. 5,16 at: 20 °C(value calculated)

#### **Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester**

Bioconcentration factor (BCF): value calculated 8.228 The substance hydrolyzes rapidly in water. An accumulation in aquatic organisms is not to be expected.

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### 12.4 Mobility in soil

**Aspartic Acid, N,N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester**

*Distribution among environmental compartments*

Adsorption/Soil log Koc value: 4,2 - 5,1 Method: EU Method C.19 Studies of a comparable product.

*Surface tension*

ca. 63,9 mN/m at 20 °C Method: OECD Test Guideline 115

**Aspartic Acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester**

*Distribution among environmental compartments*

Adsorption/Soil log Koc value: 4,2 - 5,1 Method: EU Method C.19

### 12.5 Results of PBT and vPvB assessment

No data available

### 12.6 Additional Information

No additional information

## SECTION 13 – DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Material Recommendation:

Material that cannot be used, reprocessed or recycled should be disposed of in accordance with Federal, State, and local regulations at an approved facility. Depending on the regulations, waste treatment methods may include, e.g., landfill or incineration.

#### Uncleaned packaging Recommendation:

After final product withdrawal, all residues must be removed from containers (drip-free, powder-free or paste-free). Once the product residues adhering to the walls of the containers have been rendered harmless, the product and hazard labels must be invalidated. These containers can be returned for recycling to the appropriate centres set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.

None disposal into waste water.

## SECTION 14 – TRANSPORT INFORMATION

### Transport Information

Classified as a **Non-Dangerous** Good according to the Australian Code for the Transportation of Dangerous Goods by Road and Rail.

**U.N. Number:**

Not applicable

**DG Class:**

Non-Dangerous

**EPG card:**

Not applicable

**Hazchem Code:**

Not applicable

**Proper Shipping Name:**

Not applicable

**Packing Group:**

Not applicable

**Poison Schedule**

Not applicable

**Label**

Not applicable

## SECTION 15 – REGULATORY INFORMATION

# SAFETY DATA SHEETS (SDS)

## Enviro 950 TC Part B



**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

National and local regulations must be observed. For information on labeling please refer to section 2 of this document.

**Poisons Schedule Number: Not classified a schedule poison**

**Australian Inventory:  
Controlled Schedule  
Carcinogenic Substances:**

Listed  
No listed substances

## SECTION 16 – OTHER INFORMATION

Safety Data Sheets are updated regularly. Please ensure you have a current copy. SDS can be obtained from our website: [www.envirosystems.com.au](http://www.envirosystems.com.au)

The SDS should be used to assist in the Risk Management. Many other factors determine whether the reported Hazards are risks in any given workplace.

Specific Risks may be determined by reference to various Exposure Scenarios, Scale of use, Frequency of use and current or available engineering controls must be considered.

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Emergency Telephone: Info Safe – 1800 638 556, Poisons Centre – 13112