SAFETY DATA SHEETS (SDS)
Enviro Flex FC

Version:2

Issued by: Envirosystems Technologies

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Hazard Identifiers

SECTION 1 – IDENTIFICATION OF MATERIAL & SUPPLIER

1.1	**Product Name:**	Enviro Flex FC
	Manufacturer's Product Code:	N/A
1.2	**Recommended Use:**	1 component sealant
1.3	**Company:**	Envirosystems Technologies Pty Ltd
	Address:	295 Princes Highway St Peters, NSW 2044.
	Website:	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
Respiratory Sensitisation	1

2.2 Label Elements

Signal word **Danger**

H-code	Hazard Statements
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist
P-Code	**Precautionary Statement - Prevention**
P102	Keep out of reach of children.
P103	Read label before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P260	Do not breathe dust

P264	Wash hands, face and all exposed skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace
P-Code	**Precautionary Statement - Response**
P284	Wear respiratory protection
P304, P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: call a POISON CENTER / doctor / physician.
P-Code	**Precautionary Statement - Storage**
P402, P403	Store in a dry well-ventilated place.
P-Code	**Precautionary Statement - Disposal**
P501	Dispose of contents/container in accordance with relevant regulations.

2.3 Other Hazards

Contains:
DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.
DIPHENYLMETHANE-4,4'-DIISOCYANATE
TRIS(NONYLPHENYL)PHOSPHITE

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

See section below for Mixtures

CAS No.	Material	Content %
28553-12-0	DIISONONYL PHTHALATE	5-10
1330-20-7	XYLENE	5-10
13463-67-7	TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	1-5
141-78-6	ETHYL ACETATE	1-5
13397-24-5	DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.	<1
52829-07-9	BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE	<0.5
101-68-8	DIPHENYLMETHANE-4,4'-DIISOCYANATE	<0.5
26523-78-4	TRIS(NONYLPHENYL)PHOSPHITE	<0.5
6425-39-4	2,2 - DIMORPHOLINODIETHYL ETHER	<0.5
	Ingredients not requiring disclosure	Balance

SECTION 4 – FIRST AID MEASURES

4.1 Description of first aid measures

General Advice:
If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).
Ingestion:
Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.
Inhalation:

Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
Eye Contact:
Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
Skin Contact:
Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

4.2	**Most important symptoms and effects, both acute and delayed**	Specific information on symptoms and effects caused by the product are unknown.
4.3	**Advice for doctor**	Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

5.1	**Extinguishing media**	Suitable extinguishing media: The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray. Unsuitable extinguishing media that may not be used for safety reasons: None.
5.2	**Special hazards arising from the substance or mixture**	HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Do not breathe combustion products
5.3	**Advice for firefighters**	Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations. SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137). Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1	**Personal precautions, protective equipment and emergency procedures**	Block the leakage if there is no hazard. Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.
6.2	**Environmental precautions**	Do not discharge into sewers or waterways.
6.3	**Methods and material for**	Collect the leaked product into a suitable container. Evaluate the compatibility of

	containment and cleaning up	the container to be used, by checking section 10. Absorb the remainder with inert absorbent material. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in section 13.
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**	Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment
7.2	**Conditions for safe storage**	**Storage Requirements:** Store in a cool, dry place. **Temperature Conditions:** Up to 40º C. **Protection from weather:** Store undercover in a well-ventilated area and away from moisture. **Storage incompatibility:** Avoid strong acids, bases. Avoid reaction with oxidising agents
7.3	**Specific end use(s)**	1 component sealant
7.4	**Regulations and standards (Australia):**	Classified as Hazardous which should be stored and handled in accordance with regulations

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 **Control parameters**

Exposure limits safe work Australia

Ingredient	STEL	TWA
XYLENE	150ppm	80ppm
TITANIUM DIOXIDE		10 mg/m3
ETHYL ACETATE	1440 mg/m3	720 mg/m3
DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.	0.07 mg/m3	0.02 mg/m3
DIPHENYLMETHANE-4,4'-DIISOCYANATE	0.07 mg/m3	0.02mg/m3

8.2 **Exposure controls**

General protection and hygiene measures:
General ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations. Do not eat, drink or smoke when

handling.

Personal protection equipment:

Respiratory protection

In case of exceeding the threshold value of the substance or one or more of the substances present in the product, it is advisable to wear a mask with filter type A for organic vapors, the class (1, 2 or 3) must be chosen according to the limit concentration of use.

Eye protection

Safety glasses with side shield are adequate for most applications. Chemical goggles or Full face respiratory may be required if exposure causes discomfort.

Hand protection

When handling wear chemical resistant gloves. PVC, neoprene or nitrile glove.

Skin protection

Overalls clothing. Barrier cream.

Other Information

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	**Odour:**	Not determined
	Odour Threshold	Not determined
	Colour:	Various
	Physical State:	Paste
	Flash Point:	Not relevant
	Autoignition Temperature:	Not determined
	Boiling Point:	Not relevant
	Melting Point:	Not determined
	Specific Gravity:	1.30 – 1.35
	pH:	Not relevant
	Solubility in Water (g/L):	Insoluble
	Flammability:	Not flammable
	Lower Limit:	Not determined
	Higher Limit:	Not determined
	Vapour Pressure:	Not determined
	Vapour Density (Air = 1)	Not determined
	Viscosity	60000 - 135000 cps
9.2	**Other information**	VOC (Directive 2010/75/EC) : 6.97%

SECTION 10 – STABILITY AND REACTIVITY

10.1 -3	**Reactivity; Chemical stability; Possibility of hazardous reactions**	Stable when stored and used as directed.
10.4	**Conditions to avoid**	None known in normal conditions of use and storage
10.5	**Incompatible materials**	Incompatible with strong acids (e.g. hydrofluoric acid), 0xidising agents and water.

10.6 Hazardous decomposition products Smoke and other toxic fumes.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity/Effects

ATE toxicity
ATE (Inhalation) of the mixture: > 20 mg/l
ATE (Oral) of the mixture: Not classified (no significant component)
ATE (Dermal) of the mixture: >2000 mg/kg.

Acute toxicity

2,2 - DIMORPHOLINODIETHYL ETHER	*LD50 (Oral)*	*2025 mg/kg Rattus sp.*
TRIS(NONYLPHENYL)PHOSPHITE	*LD50 (Oral)*	*> 15000 mg/kg Rattus sp*
DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.	*LD50 (Oral)*	*> 2000 mg/kg Rattus sp.*
BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE	*LD50 (Oral)*	*3700 mg/kg Rattus sp.*
TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	*LD50 (Oral)*	*> 10000 mg/kg Rat*
DIISONONYL PHTHALATE	*LD50 (Oral)*	*> 10000 mg/kg Rat - Sprague-Dawley*
ETHYL ACETATE	*LD50 (Oral)*	*5620 mg/kg Rattus sp.*
XYLENE	*LD50 (Oral)*	*5627 mg/kg Mus sp.*

2,2 - DIMORPHOLINODIETHYL ETHER	*LD50 (Dermal)*	*3038 mg/kg Oryctolagus sp.*
TRIS(NONYLPHENYL)PHOSPHITE	*LD50 (Dermal)*	*> 2000 mg/kg Oryctolagus sp.*
DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.	*LD50 (Dermal)*	*> 9400 mg/kg Oryctolagus sp.*
BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE	*LD50 (Dermal)*	*> 3170 mg/kg Rattus sp.*
DIISONONYL PHTHALATE	*LD50 (Dermal)*	*> 3160 mg/kg Rabbit - New Zeland white*
ETHYL ACETATE	*LD50 (Dermal)*	*> 20000 mg/kg Oryctolagus sp.*
XYLENE	*LD50 (Dermal)*	*> 5000 mg/kg Oryctolagus sp.*

DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.	*LC50 (Inhalation)*	*1.5 mg/l/4h Rattus sp.*
BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE	*LC50 (Inhalation)*	*0.5 mg/l Rattus sp*
DIISONONYL PHTHALATE	*LC50 (Inhalation)*	*> 4,4 mg/l Rat - Sprague-Dawley*
ETHYL ACETATE	*LC50 (Inhalation)*	*1600 mg/kg Oryctolagus sp.*
XYLENE	*LC50 (Inhalation)*	*6700 ppm/4h Rattus sp.*

Skin corrosion/irritation
Does not meet the classification criteria for this hazard class.

Serious eye damage/eye irritation
Does not meet the classification criteria for this hazard class.

Inhalation:
Sensitising for the respiratory system.

Sensitising hazard
Sensitising for the respiratory system.

Aspiration hazard
This material is not an aspiration hazard.

Chronic Toxicity/Effects

Specific target organ systematic toxicity (single exposure)
Does not meet the classification criteria for this hazard class.

Specific target organ systematic toxicity (repeated exposure)
Does not meet the classification criteria for this hazard class.

Genetic toxicity
Insufficient data available.

Carcinogenicity
Does not meet the classification criteria for this hazard class

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1% or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

Reproductive toxicity
Does not meet the classification criteria for this hazard class.

Teratogenicity
No data available.

Long Term Effects:

Inhalation of this product causes sensitization, which may then give rise to a series of inflammatory episodes, most of all characterized by obstruction and affecting the respiratory system. Sometimes, sensitization phenomena arise together with evident rhinitis and asthma. Damages to the respiratory system depend on the inhaled quantity, on the product concentration in the working environment and on the exposure time.
This product contains isocyanates. Producer's specifications are as follows: Ready-to-use products containing isocyanates may irritate mucosas, particularly those of the respiratory system, and may give rise to hypersensitivity reactions. Vapour or aerosol inhalation may lead to sensitization. Please take all the measures used for all solvent-containing products while manipulating isocyanate-containing products. Avoid vapour and aerosol inhalation. People with allergic or asthmatic precedents or subject to respiratory disorders should not handle products containing isocyanates.
This product contains sensitizing substance/s and may cause allergic reactions.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity

Acute aquatic hazard:
2,2 - DIMORPHOLINODIETHYL ETHER
LC50 - for Fish > 2150 mg/l/96h
EC50 - for Crustacea > 100 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants > 100 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants 100 mg/l

TRIS(NONYLPHENYL)PHOSPHITE
LC50 - for Fish 7,1 mg/l/96h Danio rerio

DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.
LC50 - for Fish > 1000 mg/l/96h Danio rerio
EC50 - for Algae / Aquatic Plants > 1640 mg/l/72h Scenedesmus subspicatus
Chronic NOEC for Crustacea > 10 mg/l Daphnia magna

DIPHENYLMETHANE-4,4'-DIISOCYANATE
LC50 - for Fish > 1000 mg/l/96h Danio rerio
EC50 - for Algae / Aquatic Plants > 1640 mg/l/72h Scenedesmus subspicatus
Chronic NOEC for Crustacea > 10 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants 1640 mg/l Desmodesmus subspicatus

BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE
LC50 - for Fish 4,4 mg/l/96h Brachydanio rerio
EC50 - for Crustacea 0,57 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants 1,9 mg/l/72h Scenedesmus subspicatus

DIISONONYL PHTHALATE
LC50 - for Fish > 102 mg/l/96h Danio rerio
EC50 - for Crustacea > 74 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants > 88 mg/l/72h Scenedesmus subspicatus

ETHYL ACETATE
LC50 - for Fish > 212 mg/l/96h
EC50 - for Crustacea 260 mg/l/48h Daphnia pulex

XYLENE
LC50 - for Fish 2,6 mg/l/96h Oncorhynchus mykiss
EC50 - for Algae / Aquatic Plants 4,36 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Fish > 1,3 mg/l Oncorhynchus mykiss
Chronic NOEC for Crustacea 1,57 mg/l Daphnia magna

12.2 Persistence and degradability

2,2 - DIMORPHOLINODIETHYL ETHER
NOT rapidly degradable

TRIS(NONYLPHENYL)PHOSPHITE
NOT rapidly degradable

DIPHENYLMETHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES.
NOT rapidly degradable

BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE
NOT rapidly degradable

TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]
Solubility in water < 0,001 mg/l

Degradability: information not available

DIISONONYL PHTHALATE
Solubility in water < 0,1 mg/l
Rapidly degradable

ETHYL ACETATE
Solubility in water > 10000 mg/l
Rapidly degradable

XYLENE
Rapidly degradable

12.3 Bioaccumulative potential

DIISONONYL PHTHALATE
Partition coefficient: n-octanol/water 8,8
BCF > 3

ETHYL ACETATE
Partition coefficient: n-octanol/water 0,68
BCF 30

12.4 Mobility in soil

DIISONONYL PHTHALATE
Partition coefficient: soil/water 6

12.5 Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6 Additional Information

Do NOT discharge into sewer or waterways.

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:
Observe local/state/federal regulations. Uncleaned packaging should be treated with the same precautions as the material.

SECTION 14 – TRANSPORT INFORMATION

Transport Information

Not classified as a **Non-Dangerous Good** according to the Australian Code for the Transportation of Dangerous Goods by Road and Rail.

U.N. Number:	N/A
DG Class:	N/A
EPG card:	N/A
Hazchem Code:	N/A
Proper Shipping Name:	N/A.
Packing Group:	N/A

Classification for SEA transport (IMO-IMDG)

U.N. Number:	N/A
DG Class:	N/A
Proper Shipping Name:	N/A.

	Packing Group:	N/A
	Marine Pollutant:	No
Classification for AIR transport (IATA/ICAO)	U.N. Number:	N/A
	DG Class:	N/A
	Proper Shipping Name:	N/A
	Packing Group:	N/A
Label	None	

SECTION 15 – REGULATORY INFORMATION

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: N/A**
	Australian Inventory:	Listed
	Controlled Schedule	No listed substances
	Carcinogenic 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
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.

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