

SAFETY DATA SHEETS (SDS)

Enviro Hydrostatic 1

Version:2

Issued by: Envirosystems Technologies

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Hazard Identifiers



SECTION 1 – IDENTIFICATION OF MATERIAL & SUPPLIER

- 1.1 Product Name:** Enviro Hydrostatic 1
Manufacturer's Product Code: N/A
- 1.2 Recommended Use:** 1 component, flexible cementitious waterproof membrane
- 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
Skin Corrosion/Irritation	2
Serious Eye Damage/Irritation	1
Sensitisation	1
Specific Target Organ Toxicity (Single Exposure):	3 (Respiratory Tract)
Specific Target Organ Systemic Toxicity (Repeated Exposure):	2

- 2.2 Label Elements**



Signal word

Danger

H-code	Hazard Statements
H315	Causes skin irritation
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure
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
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/doctor/physician/first aider
P304, P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P302, P352	IF ON SKIN: Wash with plenty of soap and water.
P310	Immediately call a POISON CENTER or doctor/physician.
P332, P313	If skin irritation occurs: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
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

This dust of this product is hazardous. When water is added the product is alkaline, PH ≈11.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances**3.2 Mixtures**

See section below for Mixtures

CAS No.	Material	Content %
65997-15-1	Portland cement	10-30
14808-60-7	graded sand	10-30
1317-65-3	calcium carbonate	10-20
65996-69-2	blast furnace slag	<5
13397-24-5	gypsum	<5
	Ingredients not requiring disclosure	Balance

SECTION 4 – FIRST AID MEASURES

4.1 Description of first aid measures**General Advice:**

Do not breathe in dust when applying first aid. If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Ingestion:

If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway. Never

give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Inhalation:

If dust is inhaled, remove from contaminated area. Encourage patient to blow nose to ensure clear passage of breathing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If irritation or discomfort persists seek medical attention. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay

Eye Contact:

While holding eyes open, gently flood with plenty of fresh water for 15 minutes. Washing within one minute is essential to achieve maximum effectiveness. Seek medical attention without delay; if pain persists or recurs seek medical attention. Skilled personnel should only undertake removal of contact lenses after an eye injury.

Skin Contact:

Flush contacted area thoroughly with soap and plenty of water. Seek medical attention in event of irritation. Remove contaminated clothing including footwear.

- | | |
|--|---|
| 4.2 Most important symptoms and effects, both acute and delayed | Chronic exposure to crystalline silica may result in lung fibrosis (silicosis). Principal symptoms of silicosis are coughing and breathlessness. Crystalline silica is classified as carcinogenic to humans (IARC Group 1). Product will become corrosive when in contact with water (water in eyes). Product can also cause dermatitis with long term exposure. Any other relevant information can be found in other parts of this section and in sections 2 and 11. |
| 4.3 Advice for doctor | Treat symptomatically. |

SECTION 5 – FIRE FIGHTING MEASURES

- | | |
|--|---|
| 5.1 Extinguishing media | <p>Suitable extinguishing media:
Use media suitable to surrounding source of fire.</p> <p>Unsuitable extinguishing media that may not be used for safety reasons:
None.</p> |
| 5.2 Special hazards arising from the substance or mixture | No flammable but may evolve toxic gases if strongly heated. Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
| 5.3 Advice for firefighters | <p>Wear full body protective clothing with breathing apparatus.</p> <p>Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.</p> <p>Combustion products include:
carbon monoxide (CO)
carbon dioxide (CO₂)
silicon dioxide (SiO₂)
metal oxides</p> |

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** Secure the area. Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes and skin. If material is released indicate risk of slipping. Do not walk through spilled material.
- 6.2 Environmental precautions** Do not discharge into sewers or waterways.
- 6.3 Methods and material for containment and cleaning up**
- Minor Spills:**
Wear protective clothing, gloves, safety glasses and dust respirator. Contain spillage, then collect and place in suitable containers for disposal. Avoid generating dust. Fine water spray will reduce dust but also react and hardened the product also it will create a high alkaline liquid and past.
- Major Spills:**
Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by all means available, spillage from entering drains or water courses.
- 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. Hands and/or face should be washed before breaks and at the end of the shift. Use of safe work practices are recommended to avoid eye or skin contact and inhalation.
- 7.2 Conditions for safe storage**
- Storage Requirements:**
Store in a cool, dry place.
- Temperature Conditions:**
Up to 40° C.
- Protection from weather:**
Store undercover in a well-ventilated area and away from moisture. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.
- Suitable container:**
Polyethylene or polypropylene container. Check all containers are clearly labelled and free from leaks.
- Storage incompatibility:**
WARNING: Avoid or control reaction with peroxides. All transition metal peroxides should be considered as potentially explosive. For example transition metal complexes of alkyl hydroperoxides may decompose explosively.
The pi-complexes formed between chromium(0), vanadium(0) and other transition metals (haloarene-metal complexes) and mono- or poly-fluorobenzene show extreme sensitivity to heat and are explosive.
Avoid strong acids, bases.

Avoid reaction with oxidising agents

- 7.3 Specific end use(s)** 1 component, flexible cementitious waterproof membrane.
- 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	
portland cement	Not Available	10 mg/m ³	This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
graded sand Silica - Crystalline: Quartz (respirable dust)	Not Available	0.05 mg/m ³	Not Available
calcium carbonate	Not Available	10 mg/m ³	This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
gypsum Calcium sulphate	Not Available	10 mg/m ³	This value is for inhalable dust containing no asbestos and < 1% crystalline silica.

Emergency Limits:

Ingredient	TEEL-1	TEEL-2	TEEL-3
graded sand	0.075 mg/m ³	33 mg/m ³	200 mg/m ³
calcium carbonate	45 mg/m ³	210 mg/m ³	1300 mg/m ³

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. Maintain dust levels below the recommended exposure standard.

Personal protection equipment:

Respiratory protection

Where an inhalation risk exists wear a Class P1 (Particulate) respirator, dependent on a site specific risk assessment. Use negative pressure respirators when exceeding exposure limits.

Eye protection

Chemical goggles. Full face respiratory may be required if exposure causes discomfort. Once dust is no longer a hazard safety glasses with side shield are adequate for most applications.

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:	None
	Odour Threshold	Not determined
	Colour:	Grey
	Physical State:	Solid powder
	Flash Point:	Not relevant
	Autoignition Temperature:	Not determined
	Boiling Point:	Not relevant
	Melting Point:	Not determined
	Specific Gravity:	≈2.13
	pH:	≈11 when combined with water
	Solubility in Water (g/L):	Partially soluble
	Flammability:	Not flammable
	Lower Limit:	Not determined
	Higher Limit:	Not determined
	Vapour Pressure:	Not determined
	Vapour Density (Air = 1)	Not determined
9.2	Other information	None available

SECTION 10 – STABILITY AND REACTIVITY

10.1	Reactivity; Chemical stability;	Stable when stored and used as directed.
-3	Possibility of hazardous reactions	
10.4	Conditions to avoid	None known
10.5	Incompatible materials	Incompatible with strong acids (e.g. hydrofluoric acid), Oxidising agents and water.
10.6	Hazardous decomposition products	Smoke and other toxic fumes.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity/Effects

Acute toxicity

Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract. This material has been classified as non-hazardous.

<i>portland cement</i>	<i>Not Available</i>	
<i>graded sand</i>	<i>Oral(Rat) LD50; 500 mg/kg</i>	<i>Value obtained from Europe ECHA Registered Substances - Acute toxicity</i>
<i>calcium carbonate</i>	<i>Oral(Rat) LD50; 6450 mg/kg</i>	<i>Value obtained from Europe ECHA Registered Substances - Acute toxicity</i>
<i>blast furnace slag</i>	<i>Oral(Rat) LD50; >2000 mg/kg</i>	<i>Value obtained from manufacturer's SDS</i>
<i>gypsum</i>	<i>Oral(Rat) LD50; >1581 mg/kg</i>	<i>Value obtained from manufacturer's SDS</i>

Skin corrosion/irritation

Over exposure may result in mild irritation, rash and dermatitis. Skin: this material has been classified as a Category 2 Hazard (reversible effects to skin).

<i>portland cement</i>	<i>Not Available</i>	
<i>graded sand</i>	<i>Not Available</i>	

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<i>calcium carbonate</i>	<i>Skin (rabbit): 500 mg/24h-moderate</i>	
<i>blast furnace slag</i>	<i>Skin: no adverse effect observed (not irritating)</i>	<i>Value obtained from Europe ECHA Registered Substances - Acute toxicity</i>
<i>gypsum</i>	<i>Not Available</i>	

Serious eye damage/eye irritation

If applied to the eyes, this material causes severe eye damage. Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes).

<i>portland cement</i>	<i>Not Available</i>	
<i>graded sand</i>	<i>Not Available</i>	
<i>calcium carbonate</i>	<i>Eye: no adverse effect observed (not irritating)</i>	<i>Value obtained from Europe ECHA Registered Substances - Acute toxicity</i>
<i>blast furnace slag</i>	<i>Eye: no adverse effect observed (not irritating)</i>	<i>Value obtained from Europe ECHA Registered Substances - Acute toxicity</i>
<i>gypsum</i>	<i>Not Available</i>	

Inhalation:

Material is an irritant to mucous membranes and respiratory tract. This material has been classified as non-hazardous.

<i>portland cement</i>	<i>Not Available</i>	
<i>graded sand</i>	<i>Not Available</i>	
<i>calcium carbonate</i>	<i>Not Available</i>	
<i>blast furnace slag</i>	<i>Inhalation(Rat) LC50; >5.235 mg/L4h</i>	<i>Value obtained from Europe ECHA Registered Substances - Acute toxicity</i>
<i>gypsum</i>	<i>Inhalation(Rat) LC50; >3.26 mg/l4h</i>	<i>Value obtained from Europe ECHA Registered Substances - Acute toxicity</i>

Sensitization

There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population.

Aspiration hazard

This material is not an aspiration hazard.

Chronic Toxicity/Effects

Specific target organ systematic toxicity (single exposure)

This material has been classified as a Category 3 Hazard, Respiratory Tract Irritation via inhalation.

Specific target organ systematic toxicity (repeated exposure)

Repeated exposure to respirable silica may result in pulmonary fibrosis (silicosis). Silicosis is a fibronodular lung disease caused deposition in the lungs of fine respirable particles of crystalline silica. Principal symptoms of silicosis are coughing and breathlessness. This material has been classified as a Category 2 Hazard.

Genetic toxicity

Insufficient data available.

Carcinogenicity

Crystalline silica is classified as carcinogenic to humans (IARC Group 1). However, there is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis. Therefore, preventing the onset of silicosis will also reduce the cancer risk.

Reproductive toxicity

No data available.

Teratogenicity

No data available.

Long Term Effects:

Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Cement contact dermatitis (CCD) may occur when contact shows an allergic response, which may progress to sensitisation. Sensitisation is due to soluble chromates (chromate compounds) present in trace amounts in some cements and cement products. Soluble chromates readily penetrate intact skin. Cement dermatitis can be characterised by fissures, eczematous rash, dystrophic nails, and dry skin; acute contact with highly alkaline mixtures may cause localised necrosis.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity

Acute aquatic hazard:

This material has been classified as non-hazardous.

Long-term aquatic hazard:

This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic

calcium carbonate

NOEC(ECx) 6h Fish 4-320mg/l US EPA, Ecotox database - Aquatic Toxicity Data
EC50 72h Algae or other aquatic plants >14mg/l Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity
LC50 96h Fish >165200mg/L US EPA, Ecotox database - Aquatic Toxicity Data

blast furnace slag

NOEC(ECx) 72h Algae or other aquatic plants \geq 100mg/l Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity
EC50 72h Algae or other aquatic plants >100mg/l Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity
LC50 96h Fish >100000mg/L Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity
EC50 48h Crustacea >100mg/l Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity

gypsum

NOEC(ECx) 0.25h Fish 75mg/l US EPA, Ecotox database - Aquatic Toxicity Data
EC50 72h Algae or other aquatic plants >79mg/l Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity
LC50 96h Fish >79mg/l Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity

12.2 Persistence and degradability

gypsum

Persistence: Water/Soil High

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Persistence: Air High

12.3 Bioaccumulative potential

gypsum
LOW (LogKOW = -2.2002)

12.4 Mobility in soil

gypsum
LOW (KOC = 6.124)

12.5 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:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. 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

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Australian Inventory:	Listed
Controlled Schedule	Not 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.

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