

SECTION I -- IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

TRADE NAME: SOIL-SEMENT[®]
CHEMICAL NAME: POLYMER EMULSION
SYNONYMS: DUST RETARDANT
CHEMICAL FAMILY: N/A
MOLECULAR WEIGHT: N/A
FORMULA: AQUEOUS ACRYLIC VINYL ACETATE POLYMER EMULSION
CAS REGISTRY NO.: PRODUCT A BLEND - NO NUMBER ASSIGNED

SECTION II -- COMPOSITION/INFORMATION ON INGREDIENTS

<u>NAME</u>	<u>CAS REG NO.</u>	<u>WT. %</u>
Acrylic & Vinyl Acetate Polymer	Non-hazardous	5-50
Water	7732-18-5	95-50

SECTION III -- HAZARDS IDENTIFICATION

Acrylic & Polyvinyl Acetate Polymer Non-hazardous
Water Non-hazardous

SECTION IV -- FIRST AID MEASURES

EYES: Flush eyes with flowing water at least 15 minutes, get medical attention.
INHALATION: Move subject to fresh air.
SKIN: Flush with large amount of water or wash with soap and water.
INGESTION: Give water to drink. Call a physician.
NEVER GIVE FLUIDS OR INDUCE VOMITING.
IF PATIENT IS UNCONSCIOUS OR HAVING CONVULSIONS.

SECTION V -- FIRE FIGHTING MEASURES

FLASH POINT (TEST METHOD): Emulsion, >210⁰F
AUTOIGNITION TEMPERATURE: N/A
EXTINGUISHING MEDIUM: N/A
SPECIAL FIREFIGHTING PROCEDURES: N/A
UNUSUAL FIRE AND EXPLOSION HAZARDS: Material can splatter above 212⁰F. Dried polymer film can burn but will not support combustion.

SECTION VI - ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES: Dike and control spill. Transfer liquid to containers for recovery or disposal. Keep spills out of sewers and open bodies of water.

SECTION VII -- HANDLING AND STORAGE

STORAGE: Keep in a cool, dry, ventilated storage area and in closed containers. Avoid freezing temperatures. Minimize contact with the air to prevent microorganism contamination and reduce the formation of skins on the surface.

HANDLING: Handle in a well-ventilated workspace.

SECTION VIII -- EXPOSURE CONTROL/PERSONAL PROTECTION

RESPIRATORY PROTECTION: None required if good ventilation is maintained.

VENTILATION: Mechanical exhaust at point of contaminant.

EYE PROTECTION: Chemical splash goggles recommended.

PROTECTIVE CLOTHING: Impervious gloves recommended.

OTHER: Under normal handling conditions, the risk of exposure to residual monomer is negligible.

SECTION IX -- PHYSICAL AND CHEMICAL PROPERTIES

BOILING/MELTING POINT @ 760 mm Hg: 212°F

VAPOR PRESSURE mm Hg @ 20°C: 17

SPECIFIC GRAVITY OR BULK DENSITY: 1.01 to 1.15

SOLUBILITY IN WATER: Dilutable

APPEARANCE: Milky White Liquid

ODOR: Characteristic Acrylic odor

pH: 4.0 to 9.5

SECTION X -- STABILITY AND REACTIVITY

STABILITY: Stable

CHEMICAL INCOMPATIBILITY: No hazardous reactions are expected to occur under normal industrial conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition in the presence of air may yield carbon monoxide and/or carbon dioxide and water.

HAZARDOUS POLYMERIZATION: Does not occur

CONDITIONS TO AVOID: N/A

CORROSIVE TO METAL: No

OXIDIZER: No

SECTION XI -- TOXICOLOGICAL INFORMATION**EFFECTS OF OVEREXPOSURE**

INHALATION: Vapor from stored, undiluted product can cause headache and nausea.

SKIN: Stored, undiluted product is slightly irritating to skin.

EYES: Slightly irritating to eyes.

INGESTION: May be irritating to digestive tract.

NAME	OSHA		ACGIH	
	TWA	STEL	TWA	STEL
Acrylic & polyvinyl Acetate Polymer	None	None	None	None
Water	None	None	None	None

SECTION XII -- ECOLOGICAL INFORMATION

Animal toxicity studies on blended SOIL-SEMENT® have not been carried out because we believe the fish toxicity studies done on the blend demonstrate it is as non-toxic as the individual emulsions which go into the blend. TABLE #1 gives the results of our fish toxicity tests.

In summary, these data show that the LC₅₀ of SOIL-SEMENT® on goldfish is somewhere above 12,500 ppm. This is extremely low toxicity, especially in view of the legal requirement that chemicals must be labeled "toxic to fish" only if their LC₅₀ is less than 1.0 ppm.

TABLE I

FISH TOXICITY STUDIES			
EMULSION NUMBER	TYPE OF FISH	HOURS	LC ₅₀ PPM
C	Rainbow Trout	24	10,000
C	Rainbow Trout	96	8,950
C	Bluegill Sunfish	24	10,000
C	Bluegill Sunfish	96	5,640
C	Goldfish	24	4,200
H	Goldfish	24	7,500
G	Goldfish	24	10,000
D	Goldfish	24	13,400
F	Goldfish	24	13,400
SOIL-SEMENT®	Goldfish	24	12,500 - 25,000
SOIL-SEMENT®	Goldfish	48	12,500 - 25,000
SOIL-SEMENT®	Goldfish	72	12,500 - 20,000
B	Goldfish	24	24,000
E	Goldfish	24	24,000

The 48 hour LC₅₀ for Daphnia Magna based on nominal test concentrations and mortality at the end of testing was calculated to be 3,482.8 parts per million (ppm).

SECTION XIII -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

Coagulate the emulsion by the stepwise addition of ferric chloride and lime or the addition of sand or other absorbent material. Remove the clear supernatant liquid and flush to a chemical sewer or landfill. Incinerate solids and the contaminated diking material according to local, state and federal regulations.

CONTAINER DISPOSAL:

Do not re-use containers. Do not weld on metal containers.

SECTION XIV -- TRANSPORTATION INFORMATION

D.O.T. PROPER SHIPPING NAME (49CFR172.101): None
HAZARDOUS SUBSTANCE (40CFR116): N/A
REPORTABLE QUANTITY (RQ): N/A
D.O.T. HAZARD CLASSIFICATION (49CFR172.101): Non-regulated
D.O.T. PLACARDS REQUIRED: None
POISON CONSTITUENT (49CFR173.343): N/A
BILL OF LADING DESCRIPTION: Liquid plastic, NOS
C NO.: N/A
UN/NA CODE: N/A

SECTION XV-- REGULATORY INFORMATION

SOIL-SEMENT[®] is not a restricted article according to the Department of Transportation and International Air Transport Association regulations.

EPA SARA Title III hazard class: None
OSHA HCS hazard class: Non-OSHA hazardous (29CFR1910.1200)
EPA SARA Title III Section 313 (40CFR372)

Toxic Chemicals present in quantities greater than the "de minimus" level are: None

This product is not a "controlled product" under the Canadian Workplace Hazardous Material Information System (WHMIS)

SECTION XVI -- OTHER INFORMATION**ABBREVIATIONS AND SYMBOLS:**

N.D. - Not Determined
< - LESS THAN

N.A. - Not Applicable
> - MORE THAN

N.T. - Not Tested