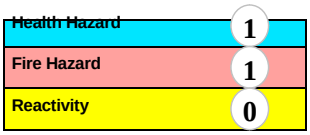
Abnie Paidar Sabz
Water & Wastewater
Environmental Management

ابنیه پایدار سبز
پالایش آب و فاضلاب
مدیریت محیط زیست

Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment
		
		See Section 15.

Section 1. Chemical Product and Company Identification

Common Name/ Trade Name	**Antifoam AF**
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248
Commercial Name(s)	Dow Corning Antifoam AF Emulsion
Synonym	Not available.
Chemical Name	Not applicable.
Chemical Family	Not available.
Chemical Formula	Not applicable.
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248

Catalog Number(s).	A1303
CAS#	Mixture.
RTECS	Not applicable.
TSCA	TSCA 8(b) inventory: Water; Dimethylpolysiloxane; Polyethylene Glycol Stearate; Glycerides, C14-18, mono- and di; Polyethylene Glycol; Octamethylcyclotetrasiloxane
CI#	Not available.

IN CASE OF EMERGENCY
CHEMTREC (24hr) 800-424-9300

CALL (310) 516-8000

Section 2.Composition and Information on Ingredients

		Exposure Limits			
Name	**CAS #**	**TWA (mg/m³)**	**STEL (mg/m³)**	**CEIL (mg/m³)**	**% by Weight**
1) Water	7732-18-5				55-75
2) Dimethylpolysiloxane	63148-62-9				15-35
3) Polyethylene Glycol Stearate	9004-99-3				3-7
4) Glycerides, C14-18, mono- and di	67701-33-1				3-7
5) Polyethylene Glycol	25322-68-3	10			1-5
6) Octamethylcyclotetrasiloxane	556-67-2				1-5

Toxicological Data on Ingredients

Polyethylene Glycol Stearate:
ORAL (LD50): Acute: >20000 mg/kg [Rat].

Octamethylcyclotetrasiloxane:
ORAL (LD50): Acute: 1540 mg/kg [Rat].
DERMAL (LD50): Acute: >2400 mg/kg [Rat]. >4640 mg/kg [Rabbit]. 1770 mg/kg [Rat].
VAPOR (LC50): Acute: 36000 mg/m³ 4 hours [Rat]. >17.6 mg/l 1 hours [Rat].

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Section 3. Hazards Identification

Potential Acute Health Effects	Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.
Potential Chronic Health Effects	**CARCINOGENIC EFFECTS**: Classified A4 (Not classifiable for human or animal.) by ACGIH [Polyethylene Glycol Stearate]. **MUTAGENIC EFFECTS**: Not available. **TERATOGENIC EFFECTS**: Not available. **DEVELOPMENTAL TOXICITY**: Not available.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact	Not available.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Not available.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	May be combustible at high temperature.
Auto-Ignition Temperature	Not available.
Flash Points	CLOSED CUP: >212℃ (413.6℉).
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO2). Some metallic oxides.
Fire Hazards in Presence of Various Substances	Slightly flammable to flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks, of oxidizing materials, of reducing materials, of combustible materials, of organic materials, of metals, of acids, of alkalis. Because of the large amount of water contained in the product, the product might be combustible only after partial or complete evaporation.
Explosion Hazards in Presence of Various Substances	Non-explosive in presence of open flames and sparks, of shocks.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

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Section 6. Accidental Release Measures

Small Spill	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids, alkalis.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	Safety glasses. Synthetic apron. Gloves (impervious). Respiratory protection is not necessary for normal handling. Good room ventilation or use of local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapor, inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	**Polyethylene Glycol** TWA: 10 (mg/m^3) from AIHA [United States] Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.	**Odor**	Slight.
Molecular Weight	Not applicable.	**Taste**	Not available.
pH (1% soln/water)	Neutral.	**Color**	Off-white. Milky White

Boiling Point	>100℃ (212℉)
Melting Point	May start to solidify at 17.5℃ (63.5℉) based on data for: Octamethylcyclotetrasiloxane.
Critical Temperature	Not available.
Specific Gravity	1 (Water = 1)
Vapor Pressure	The highest known value is 2.3 kPa (@ 20℃) (Water). Weighted average: 2.2 kPa (@ 20℃)
Vapor Density	The highest known value is 1 (Air = 1) (Octamethylcyclotetrasiloxane). Weighted average: 0.64 (Air = 1)
Volatility	43% (w/w).
Odor Threshold	Not available.
Water/Oil Dist. Coeff.	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	See solubility in water, diethyl ether, acetone.
Solubility	Soluble in cold water, diethyl ether, acetone.

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Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Excess heat, incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents. Slightly reactive to reactive with acids, alkalis.
Corrosivity	Not available.
Special Remarks on Reactivity	Not available.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Skin. Eye contact.
Toxicity to Animals	Acute oral toxicity (LD50): >5000 mg/kg [Rat]. Acute dermal toxicity (LD50): 1770 mg/kg [Rat]. (Octamethylcyclotetrasiloxane).
Chronic Effects on Humans	**CARCINOGENIC EFFECTS**: Classified A4 (Not classifiable for human or animal.) by ACGIH [Polyethylene Glycol Stearate].
Other Toxic Effects on Humans	Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	LD50 [Rat] - Route: Oral; Dose: 53-65 mL/kg (Polyethylene Glycol Stearate) LD50 [Rabbit] - Route: Oral; Dose: >12 to >15 mL/kg (Polyethylene Glycol Stearate) LD50 [Hamster] - Route: Oral; Dose: 19.5-27 mL/kg (Polyethylene Glycol Stearate) LD50 [Rabbit] - Route: Skin (Dermal); Dose: 794 ul/kg (Octamethylcyclotetrasiloxane)
Special Remarks on Chronic Effects on Humans	Equivocal tumorigenic agent by RTECS criteria (Polyethylene Glycol Stearate) May cause adverse reproductive effects and birth defects (teratogenic) based on animal test data. (Octamethylcyclotetrasiloxane)
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: May cause mild skin irritation. No significant irritation expected from a single short-term exposure. Eyes: May cause mild eye irritation with temporary reddness and discomfort. Inhalation: No signficant effects expected (low hazard) from a small single short-term exposure from inhalation. This product contains Octamethylcyclotetrasiloxane which may affect behavior/central nervous system (excitement), respiration (dyspnea), endocrine system (change in gonadotropins) when inhaled in large amounts Ingestion: The hazard from ingestion is expected to be low for normal use and handling. Acute overexposure may cause gastrointestinal tract irritation with nausea, vomiting, hypermotility and diarrhea. This product contains Octamethylcyclotetrasiloxane which may affect behavior/central nervous system (tremor). Chronic Potential Health Effects: Inhalation: Prolonged or repeated inhalation of Octamethylcyclotetrasiloxane may cause weight loss and may affect the blood (changes in serum composition; changes in cell count; normocytic anemia), liver, endocrine system (thymus, adrenal gland, pituitary gland, thyroid, estrogenic effects), urinary system. Ingestion: Prolonged or repeated ingestion of Octamethylcyclotetrasiloxane may affect the liver, endocrine system (estrogenic and uterine changes). Prolonged or repeated ingestion of Polyethylene Glycol Stearate may affect the liver and spleen.

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Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information

DOT Classification	Not a DOT controlled material (United States).
Identification	Not applicable.
Special Provisions for Transport	Not applicable.
DOT (Pictograms)	

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations	TSCA 8(b) inventory: Water; Dimethylpolysiloxane; Polyethylene Glycol Stearate; Glycerides, C14-18, mono- and di; Polyethylene Glycol; Octamethylcyclotetrasiloxane TSCA 8(a) PAIR: Dimethylpolysiloxane; Octamethylcyclotetrasiloxane TSCA 8(d) H and S data reporting: Dimethylpolysiloxane: Effective: 10/12/93; Sunset: 6/30/1998; Octamethylcyclotetrasiloxane: Effective: 12/28/1984; Sunset: 12/29/1994
California Proposition 65 Warnings	California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found. California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.
Other Regulations	Not available.
Other Classifications	**WHMIS (Canada)**: Not controlled under WHMIS (Canada). **DSCL (EEC)**: This product is not classified according to the EU regulations. Not applicable.

HMIS (U.S.A.)

Health Hazard	1
Fire Hazard	1
Reactivity	0
Personal Protection	C

National Fire Protection Association (U.S.A.)

WHMIS (Canada) (Pictograms)

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DSCL (Europe) (Pictograms)

TDG (Canada) (Pictograms)

ADR (Europe) (Pictograms)

Protective Equipment

Gloves (impervious).

Synthetic apron.

Not applicable.

Safety glasses.

Section 16. Other Information

MSDS Code	**A5625**
References	Not available.
Other Special Considerations	Major Uses: Defoamer, Emulsion

Validated by Sonia Owen on 2/15/2011.	**Verified by Sonia Owen.** **Printed 2/15/2011.**

CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.