

## DIAMAT POLYCRYSTALLINE DIAMOND SUSPENSION

### SECTION 1. PRODUCT AND COMPANY INFORMATION

**MANUFACTURER:** PACE Technologies  
3601 E. 34<sup>th</sup> St.  
Tucson, AZ 85713

**INFORMATION PHONE:** 520-882-6598

**EMERGENCY PHONE:** CHEMTREC 800-424-9300 (US) Day or night  
International call collect CHEMTREC 202-483-7616

**TRADE NAME:** DIAMAT Water Based Polycrystalline Diamond Suspension

**HMS RATING:** HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0

**HAZARD RATING:**

LEAST: 0 SLIGHT: 1 MODERATE: 2 HIGH: 3 EXTREME: 4

### SECTION 2. INGREDIENTS

CHEMICAL NAME	APPRX %	COMMON NAME	REG* (Y/N)	CAS #	OSHA P.E.L. (mg/m3)	ACGIH TLV (mg/m3)	CARCIN.
Ethylene Glycol **	10-40	Alkyl Glycol	N	107-21-1	125	100	N
Hydroxyl Glycol	5-30	Glycol	N	Proprietary	10	10	N
Water	50-80	Water	N	7732-16-5	None	None	N
Diamond	0.2-2.5	Diamond	N	7782-40-1	10	10	N

\*\* Subject to EPA section 313 reporting SARA 40 CFR part 372

Product formulation is Proprietary  
No ingredients are known to be hazardous under normal usage.

### SECTION 3. HAZARDS IDENTIFICATION

## DIAMAT POLYCRYSTALLINE DIAMOND SUSPENSION

### POTENTIAL HEALTH EFFECTS:

- EYE CONTACT:** May cause irritation.
- SKIN CONTACT:** Repeated or prolonged skin contact may cause irritation.
- INHALATION:** Vapor and mist may irritate nose and throat.
- INGESTION:** May cause gastrointestinal irritation, dizziness, malaise, uremia, central nervous system depression, and kidney damage. Nausea and vomiting may occur.
- PRIMARY ROUTE(S) OF ENTRY:** Inhalation at high temperatures, eye contact, skin contact.
- TARGET ORGANS:** Respiratory passages at high temperatures, eyes, skin.
- MEDICAL CONDITIONS AGGRAVATED BY LONG-TERM EXPOSURES:** Individuals with pre-existing skin disorders or eye problems or impaired liver or kidney function may be more susceptible to the effects of chemical.
- CARCINOGENICITY:** IARC, NTP, and OSAH do not list this product or its ingredients as carcinogens.

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## SECTION 4. FIRST-AID MEASURES

- EYE CONTACT:** Flush thoroughly with water for at least 15 minutes. Get immediate medical attention.
- SKIN CONTACT:** Remove contaminated clothing and shoes. Wash exposed areas with soap and water. Get medical attention if symptoms persist.
- INHALATION:** If symptoms develop, remove affected person from source of exposure into fresh air. Get immediate medical attention. If person is not breathing, give artificial respiration. If breathing is difficult, administer oxygen if available.
- INGESTION:** Get medical attention. Do not induce vomiting unless instructed to do so by a physician. Give large quantities of water or milk.

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## SECTION 5. FIRE-FIGHTING MEASURES

## DIAMAT POLYCRYSTALLINE DIAMOND SUSPENSION

<b>FLASH POINT:</b>	N/A
<b>FLASH POINT METHOD:</b>	N/A
<b>LOWER FLAMMABLE LIMIT (LFL):</b>	N/A
<b>UPPER FLAMMABLE LIMIT (UFL):</b>	None
<b>EXTINGUISHING MEDIA:</b>	Foam, Dry Chemical, Water Spray, CO <sub>2</sub>
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	Specific to type of material involved in fire.
<b>FIRE-FIGHTING INSTRUCTIONS:</b>	Wear a NIOSH approved positive pressure self-contained breathing apparatus with full protective clothing. Do not release runoff from fire control methods to sewers or waterways.
<b>FIRE-FIGHTING EQUIPMENT:</b>	Fire may produce toxic thermal decomposition products. Wear a self-contained breathing apparatus (SCBA) with a full face-piece operated in pressure-demand or positive-pressure mode.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

<b>SMALL SPILLS:</b>	Isolate area and deny entry. Ventilate area of leak or spill. Small spill can be picked up with vermiculite or other absorbent, noncombustible material. Properly protected personnel should flush spill with plenty of water, taking care not to splash personnel.
<b>LARGE SPILLS:</b>	Notify appropriate personnel and implement facility emergency response plan. Evacuate nonessential personnel, isolate area, provide maximum ventilation. Cleanup personnel should wear fully protective equipment for vapor inhalation and skin and eye contact.
<b>CONTAINMENT:</b>	For large spills, dike far ahead of liquid spill for later disposal. Wear protective equipment including rubber boots, rubber gloves, rubber apron and self-contained breathing apparatus. Do not release directly into sewers or waterways. Wash walking surfaces thoroughly to reduce slipping hazard.
<b>CLEAN-UP:</b>	Absorb spilled liquid with non-reactive absorbent material. Place clean-up material in appropriate disposal containers and dispose of according to local, state, and federal requirements.

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**REGULATORY REQUIREMENT:** Any release to the environment of this product may be subject to federal, state, and/or local reporting requirements. Check with appropriate agencies.

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### SECTION 7. HANDLING AND STORAGE

**HANDLING PRECAUTIONS:** Exercise ordinary care in handling industrial lubricants. Avoid contamination of cigarettes or other tobacco products. Wash hands thoroughly before eating or smoking. Remove contaminated clothing and wash before reuse.

**STORAGE REQUIREMENTS:** Do not store in open or unlabeled containers. Store in well ventilated, properly drained/contained site, away from heat, out of the sun, and away from combustibles and reactive chemicals. Use only approved containers and protect containers from damage and keep material from freezing.

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### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**EYE PROTECTION:** Avoid eye contact. Wear safety glasses or chemical goggles in accordance with OSHA 29 CFR 1910.133

**SKIN PROTECTION:** Avoid skin contact. Wear chemical protective gloves. Depending upon conditions of use, additional protection may be necessary such as a face shield, apron, etc.

**VENTILATION:** Local ventilation is generally not necessary under normal conditions of use with adequate general ventilation. Ventilation and other forms of engineering controls are the preferred means for controlling chemical exposures.

**RESPIRATORY PROTECTION:** Avoid breathing in mist. Respiratory protection is generally not necessary under normal conditions or use with adequate general ventilation.

**SAFETY STATIONS:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**OTHER PRECAUTIONARY INFORMATION:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using toilet, or applying cosmetics.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>SPECIFIC GRAVITY:</b> 1.05-1.2	<b>BOILING POINT:</b> > 130° C
<b>VAPOR DENSITY:</b> Not available	<b>MELTING POINT:</b> <-10° C
<b>SOLUBILITY IN WATER:</b> 100% Soluble	<b>ORGANIC SOLVENT SOLUBILITY:</b> Insoluble
<b>APPEARANCE:</b> Cloudy liquid solution. It is typically a dark color, however it is not unusual to see the following colors: Yellow, Orange, Green, Blue, Red, Brown, Black, Purple.	<b>VAPOR PRESSURE:</b> 23
<b>ODOR:</b> Faint order	<b>pH:</b> 9-10
<b>EVAPORATION:</b> Water	<b>PERCENT VOLATILE:</b> 99%
<b>IGNITION TEMPERATURE:</b> N/A	<b>FLASH POINT:</b> N/A

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**SECTION 10. STABILITY AND REACTIVITY**

**STABILITY:** Stable at room temperature in closed contains under normal storage and handling conditions.

**POLYMERIZATION:** This product will not undergo hazardous polymerization.

**CHEMICAL INCOMPATIBILITIES:** Strong oxidizing materials, hypochlorites, chlorine.

**CONDITIONS TO AVOID:** Strong acids and bases. Heat source.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Steam, CO<sub>2</sub>, CO and unidentified organic compounds in fumes and smoke may be formed during combustion.

## SECTION 11. TOXICOLOGICAL INFORMATION

### TOXICITY DATA:

<b>EYE EFFECT:</b>	Eye Irritant. Moderately irritating to eyes.
<b>SKIN EFFECT:</b>	May cause moderate irritation.
<b>REPRODUCTIVE:</b>	Considered to be secondary maternal toxicity in animals.
<b>INGESTION EFFECT:</b>	Can cause kidney damage.
<b>ACUTE INHALATION EFFECTS:</b>	Expected to be low toxicity: LC50>20 mg/L, Rat
<b>ACUTE ORAL EFFECTS:</b>	Low toxicity: LD50>3000 mg/kg, Rat
<b>CHRONIC EFFECTS:</b>	Not established.
<b>CARCINOGENICITY:</b>	Not carcinogenic in animal studies.
<b>MUTAGENICITY:</b>	No evidence of mutagenic activity.
<b>TERATOGENICITY:</b>	Not reported.

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## SECTION 12. ECOLOGICAL INFORMATION

<b>ECOTOXICITY:</b>	Low toxicity: LC/EC/IC50>100 mg/L
<b>SOIL ABSORPTION/MOBILITY:</b>	Dissolves in water. If product enters soil, it will be highly mobile and may contaminate groundwater.
<b>DEGRADABILITY:</b>	Biodegradable. Oxides by photochemical reactions in air.
<b>ENVIRONMENTAL FATE AND EFFECT:</b>	Not Available

### SECTION 13. DISPOSAL CONSIDERATIONS

- DISPOSAL:** Contact a licensed waste-disposal contractor for detailed recommendations. Follow applicable Federal, State, and Local regulations.
- CONTAINER DISPOSAL:** Rinse three times with an appropriate solvent or water. Dispose or recycle the empty container.
- DISPOSAL REGULATORY REQUIREMENTS:** Many states classify waste lubricants as "hazardous", which means disposal only by a licensed firm. Follow applicable Federal, state, and local regulations.

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### SECTION 14. TRANSPORT INFORMATION

This product meets transportation requirements of the US Department of Transportation (DOT), ICAO and IATA. This is classified as non-dangerous goods.

**DOT TRANSPORTATION (49 CFR 172.101)** Not regulated for quantities < RQ value

**Identification number:** UN 3082

**Proper shipping name:** Environmentally hazardous substances, liquid, n.o.s

**Class/ Division:** 9

**Packing Group:** III

**Hazardous subst./material RQ:** Ethylene glycol / 5,050.51 lb

**Emergency Response Guide:** 171

**IMDG:** This material is not classified as dangerous under IMDG regulation.

**IATA (Country variations may apply)** This material is not classified as dangerous under IATA regulations.

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### SECTION 15. REGULATORY INFORMATION

**TSCA:** All components of this product are listed on the TSCA inventory

**EPA REGULATIONS:** SARA 311/312 Hazard Class (40 CFR 370)  
Immediate (Acute) Health Hazard: Yes  
Sudden Release of Pressure Hazard: No  
Reactive Hazard: No  
Delayed (Chronic) Health Hazard: No  
Fire Hazard: No

## DIAMAT POLYCRYSTALLINE DIAMOND SUSPENSION

SARA 313 Toxic Chemicals (40 CFR 372.65)

Ethylene Glycol (CAS Number 107-21-1), 10-40%

SARA Extremely Hazardous Substances (40 CFR 355)

No ingredients listed

CERCLA Hazardous Substances (40 CFR 302)

Ethylene Glycol (CAS Number 107-21-1), (Reportable Quantity  
– RQ 5000 lbs)

### OSHA REGULATIONS:

Air contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A)

No ingredients listed

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## SECTION 16. OTHER INFORMATION

Additional Information

NA = NOT APPLICABLE

NE = NOT ESTABLISHED

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DATE PREPARED: 8/22/2009

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