SAFETY DATA SHEET

1. Identification

Product identifier	**DPD Powder**
Product code	R-0870
Recommended use	Use as directed by manufacturer for purposes directly related to water testing.
Recommended restrictions	None known

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name	Taylor Technologies, Inc.	
Address	31 Loveton Circle Sparks, MD 21152 United States	
Telephone	(410) 472-4340	Monday–Friday, 8:00 a.m.–4:30 p.m.
Website	www.taylortechnologies.com	
E-mail	Not available	
Emergency phone number	(800) 837-8548	
Supplier	Refer to Manufacturer	

2. Hazard(s) identification

Physical hazards	This mixture does not meet the classification criteria according to OSHA HazCom 2012.
Health hazards	Acute toxicity, inhalation Category 4
Environmental hazards	Not currently regulated by OSHA. For additional information, refer to section 12 of the SDS.
Label elements	
Signal word	Warning
Hazard statement	Harmful if inhaled
Precautionary statement	
Prevention	Avoid breathing dust. Use only outdoors or in a well-ventilated area.
Response	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a physician or poison control center if you feel unwell.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Product dust may be irritating to eyes, skin, and respiratory system. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.
Supplemental information	None

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Potassium phosphate, monobasic	Potassium dihydrogen phosphate; MKP	7778-77-0	60–65
Disodium phosphate	Disodium hydrogenorthophosphate; Sodium phosphate, dibasic	7558-79-4	30–35
Disodium dihydrate EDTA	Disodium ethylenediamine tetraacetate; Ethylenediaminetetraacetic acid sodium salt	6381-92-6	0.1–5
N,N-diethylbenzene-1,4-diammonium sulfate	N,N-diethyl-p-phenylenediamine sulfate	6283-63-2	0.1–5
Trade secret			0.1–5
Trade secret			0.1–5
Other components below reportable levels			0.1–5

4. First-aid measures

Inhalation
Move to fresh air. Give oxygen or artificial respiration if needed. Get medical attention immediately.

Skin contact
Immediately wash skin with soap and water. If symptoms persist or in all cases of concern, seek medical advice.

Eye contact
Immediately flush eyes with plenty of water for at least 20 minutes. Remove contact lenses if present and easy to do. Continue rinsing. If symptoms persist or in all cases of concern, seek medical advice.

Ingestion
Treat symptomatically. Never give anything by mouth to a person who is unconscious or is having convulsions. Do NOT induce vomiting unless directed by physician. If symptoms persist or in all cases of concern, seek medical advice.

Most important symptoms/effects, acute and delayed
Direct skin contact may cause slight or mild transient irritation. Symptoms may include redness, edema, drying, and cracking of the skin. Direct eye contact may cause slight or mild transient irritation. Symptoms may include stinging and tearing. Inhalation of dust can cause respiratory irritation. Symptoms may include coughing and breathing difficulties. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically.

General information
Ensure medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide.

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions
Firefighters should wear full protective gear. Evacuate the area promptly. Fight fire from upwind to avoid exposure to combustion products. Cool containers/tanks with water spray. Do not get water inside container. Move containers from fire area if you can do it without risk. Prevent fire-extinguishing water from contaminating surface water or the ground water system.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted

Hazardous combustion products
Phosphorous oxides. Sodium oxides. Other irritating fumes and smoke.

6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during cleanup. Do not breathe dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protective equipment, refer to section 8 of the SDS.
Methods and materials for containment and cleaning up	Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Sweep up or vacuum up spillage and collect in suitable container for later disposal. Never return spills to original containers for reuse. For waste disposal, refer to section 13 of the SDS. Contaminated absorbent material may pose the same hazards as the spilled product. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.
Environmental precautions	Avoid discharge into drains, water courses, or onto the ground.

7. Handling and storage

Precautions for safe handling	Do not breathe dust. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. For personal protective equipment, refer to section 8 of the SDS. Keep away from incompatibles. Observe good industrial hygiene practices. Label containers appropriately.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (refer to section 10 of the SDS). Protect against physical damage. Use care in handling/storage.

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for the ingredient(s)
Biological limit values	No biological exposure limits noted for the ingredient(s)
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles) and a face shield. Provide an emergency eyewash fountain and quick-drench shower in the immediate work area.
Skin protection	
Hand protection	Wear appropriate chemical-resistant gloves. Advice should be sought from glove suppliers.
Other	Wear appropriate chemical-resistant clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to fumes at levels exceeding the exposure limits. Advice should be sought from respiratory protection suppliers.
Thermal hazards	When necessary, wear appropriate thermal protective clothing.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contamination. Avoid breathing dust.

9. Physical and chemical properties

Appearance	
Physical state	Solid
Form	Powder
Color	Off-white
Odor	Odorless
Odor threshold	Not available
pH	Not applicable
Melting point/freezing point	Not available
Initial boiling point and boiling range	Not applicable

Flash point	Not applicable (does not burn)
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	
Flammability limit, lower (%)	Not applicable
Flammability limit, upper (%)	Not applicable
Explosive limit, lower (%)	Not applicable
Explosive limit, upper (%)	Not applicable
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	1.60 g/cm^3
Solubility(ies)	
Solubility (water)	>95%
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
Viscosity	Not applicable
Other information	
Explosive properties	Not applicable
Oxidizing properties	Not applicable
Percent volatile	Not applicable
Specific gravity	1.60 g/cm^3

10. Stability and reactivity

Reactivity	This product is stable and nonreactive under normal conditions of use, storage, and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use
Conditions to avoid	Contact with incompatible materials. Do not use in areas without adequate ventilation.
Incompatible materials	Oxidizing agents. Strong acids. Strong bases.
Hazardous decomposition products	None known. For hazardous combustion products, refer to section 5 of the SDS.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system
Skin contact	May cause slight or mild irritation
Eye contact	May cause irritation
Ingestion	May cause irritation of the gastrointestinal tract
Most important symptoms/effects, acute and delayed	Direct skin contact may cause slight or mild transient irritation. Symptoms may include redness, edema, drying, and cracking of the skin. Direct eye contact may cause slight or mild transient irritation. Symptoms may include stinging and tearing. Inhalation of dust can cause respiratory irritation. Symptoms may include coughing and breathing difficulties. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.
Acute toxicity	Harmful if inhaled
	The product data below contains the calculated ATE values for this mixture as well as individual component data.

Components	Species	Test Results
Disodium dihydrate EDTA (CAS 6381-92-6)		
Acute		
Dermal		
LD_{50}	Rabbit	Not available
Inhalation		
LC_{50}	Rat	Not available
Oral		
LD_{50}	Rat	2000 mg/kg
Disodium phosphate (CAS 7558-79-4)		
Acute		
Dermal		
LD_{50}	Rat	>2000 mg/kg (no deaths observed)
Inhalation		
LC_{50}	Rat	Not available
Oral		
LD_{50}	Rat	>2000 mg/kg (no deaths observed)
N,N-diethylbenzene-1,4-diammonium sulfate (CAS 6283-63-2)		
Acute		
Dermal		
LD_{50}	Rabbit	Not available
Inhalation		
LC_{50}	Rat	Not available
Oral		
LD_{50}	Rat	450 mg/kg
Potassium phosphate, monobasic (CAS 7778-77-0)		
Acute		
Dermal		
LD_{50}	Rat	>2000 mg/kg
Inhalation		
LC_{50}	Rat	>0.83 mg/L, 4 hours
Oral		
LD_{50}	Rat	>2000 mg/kg
Trade secret		
Acute		
Dermal		
LD_{50}	Rabbit	Not available
Inhalation		
LC_{50}	Rat	Not available
Oral		
LD_{50}	Rat	>2000 mg/kg

Skin corrosion/irritation May cause slight or mild irritation

Serious eye damage/eye irritation May cause irritation

Respiratory sensitization Not expected to be a respiratory sensitizer

Skin sensitization Not expected to be a skin sensitizer

Germ cell mutagenicity Not expected to be mutagenic

Carcinogenicity This product is not considered to be a carcinogen by IARC, NTP, OSHA, or U.S. ACGIH.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096)

Not regulated

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity, single exposure	Not classified as a specific target organ toxicity – single exposure
Specific target organ toxicity, repeated exposure	Not classified as a specific target organ toxicity – repeated exposure
Aspiration toxicity	Not expected to be an aspiration hazard
Chronic effects	Not expected to cause chronic effects

12. Ecological information

Ecotoxicity This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Disodium phosphate (CAS 7558-79-4) – Aquatic			
Aquatic			
Acute			
Algae	EC_{50}	Green algae *(Desmodesmus subspicatus)*	>100 mg/L, 72 hours
Crustacea	EC_{50}	Water flea *(Daphnia magna)*	>100 mg/L, 48 hours
Fish	LC_{50}	Rainbow trout, Donaldson trout *(Oncorhynchus mykiss)*	>100 mg/L, 96 hours
Chronic			
Algae	NOEC	Green algae *(Desmodesmus subspicatus)*	>100 mg/L, 72 hours
Trade secret			
Aquatic			
Acute			
Crustacea	EC_{50}	Water flea *(Daphnia magna)*	85 mg/L, 48 hours
Fish	EC_{50}	Ide, silver or golden orfe *(Leuciscus idus)*	440–760 mg/L, 96 hours

Persistence and degradability	Not available
Bioaccumulative potential	
Bioconcentration factor (BCF)	
Trade secret	3.2
Mobility in soil	High water solubility indicates a high mobility in soil.
Other adverse effects	No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer, and the waste disposal company.
Waste from residues/unused products	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (refer to Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste-handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transportation information

DOT

Not regulated as dangerous goods

IATA

Not regulated as dangerous goods

IMDG

Not regulated as dangerous goods

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

15. Regulatory information

US federal regulations

This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

One or more components are not listed on the US EPA TSCA Inventory list.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated

CERCLA Hazardous Substance list (40 CFR 302.4)

Disodium phosphate (CAS 7558-79-4)

SARA 304 Emergency release notification

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096)

Not regulated

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate hazard ─ yes
Delayed hazard ─ no
Fire hazard – no
Pressure hazard ─ no
Reactivity hazard – no

SARA 302 Extremely hazardous substance

Not regulated

SARA 311/312 Hazardous Chemical

Not regulated

SARA 313 (TRI reporting)

Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) list

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated

Safe Drinking Water Act (SDWA)

Not regulated

U.S. state regulations

California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not regulated

Massachusetts RTK - Substance List

Disodium phosphate (CAS 7558-79-4)

New Jersey Worker and Community Right-to-Know Act

Disodium phosphate (CAS 7558-79-4)

Pennsylvania Worker and Community Right-to-Know Law

Disodium phosphate (CAS 7558-79-4)

Rhode Island RTK

Disodium phosphate (CAS 7558-79-4)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International inventories

Country(ies) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	yes
Canada	Domestic Substances List (DSL)	no
Canada	Non-Domestic Substances List (NDSL)	no
China	Inventory of Existing Chemical Substances Produced or Imported in China (IECSC)	yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	no
Europe	European List of Notified Chemical Substances (ELINCS)	no
Japan	Existing and New Chemical Substances (ENCS)	yes
Korea	Existing Chemicals List (ECL)	no
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA)	no

*A “yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(ies).

A “no” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(ies).

16. Other information, including date of preparation or last revision

List of abbreviations

ACGIH: American Conference of Governmental Industrial Hygienists
AICS: Australian Inventory of Chemical Substances
CAA: Clean Air Act
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
CFR: Code of Federal Regulations
CSA: Canadian Standards Association
DEA: Drug Enforcement Agency
DOT: Department of Transportation
DSL: Domestic Substances List
EC: effective concentration
ECL: Existing Chemicals List
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
ENCS: Existing and New Chemical Substances
EPA: Environmental Protection Agency
HAP: hazardous air pollutants
HMIS: Hazardous Materials Identification System
HNOC: hazards not otherwise classified
HPA: Hazardous Products Act
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
ICAO: International Civil Aviation Organization
IECSC: Inventory of Existing Chemical Substances Produced or Imported in China
IMDG: International Maritime Dangerous Goods
IUCLID: International Uniform Chemical Information Database
LC: lethal concentration
LD: lethal dose
MARPOL: marine pollution
MSHA: Mine Safety and Health Administration
NDSL: Non-Domestic Substances List
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NOEC: no observable effect concentration
NTP: National Toxicology Program
NZIoC: New Zealand Inventory of Chemicals
OECD: Organisation for Economic Co-operation and Development
OEL: occupational exposure limits
OSHA: Occupational Safety and Health Administration
PEL: permissible exposure limits

PICCS: Philippine Inventory of Chemicals and Chemical Substances
PPE: personal protective equipment
RCRA: Resource Conservation and Recovery Act
RQ: reportable quantity
RTECS: Registry of Toxic Effects of Chemical Substances
RTK: right to know
SARA: Superfund Amendments and Reauthorization Act
SDS: Safety Data Sheet
SDWA: Safe Drinking Water Act
STEL: short-term exposure limit
TLV: threshold limit values
TSCA: Toxic Substances Control Act
TWA: time-weighted average
VOC: volatile organic compounds
WEL: workplace exposure limit

Disclaimer

The information in the Safety Data Sheet is offered for your consideration and guidance for safe handling, use, storage, transportation, disposal, and release of this product and is not considered a warranty or quality specification. Taylor Technologies, Inc., disclaims all expressed or implied warranties and assumes no responsibility for the accuracy of completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

 The information contained in this sheet is based on lab experience and the most current data available.

Issue date May 2015

Last revision May 2015