



Aqua Chemical Supply, Inc.

183 Moore Street – Millersburg – PA – 17061
Office 717-692-7369 / 1-866-375-2782 Fax 717-692-3280

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier DPD Reagent #2

Recommended use: Use as directed by manufacturer for purposes directly related to water testing.

Recommended restrictions None known

Manufacturer/Importer/Supplier/Distributor information

Manufacturer Taylor Technologies, Inc.
31 Loveton Circle
Sparks, MD 21152

Emergency telephone number: For emergency assistance involving chemicals call
CHEMTREC day or night at: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Physical hazards: This mixture does not meet the classification criteria according to OSHA HazCom 2012.

Health hazards: Eye damage/irritation Category 1

Skin corrosion/irritation: Category 1

Environmental hazards: Not currently regulated by OSHA; refer to section 12 of the SDS for additional information.



Label elements:

Signal word: Danger

Hazard statement: Causes severe skin burns and eye damage.

Precautionary statement

Prevention: Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist. Wash skin thoroughly after handling.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (OR HAIR): Take off immediately all contaminated clothing. Rinse skin with water.
Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a physician or poison control center.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
Immediately call a physician or poison control center.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified May cause pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus, and possibly the digestive tract.

Supplemental information: None

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Mixtures | Chemical name | Common name and synonyms | CAS number | % |
|----------|-----------------|--------------------------|------------|-------|
| | Deionized water | Dihydrogen oxide | 7732-18-5 | 90-99 |

| | | |
|--|-------------|-------|
| Trade secret | Proprietary | 5-10 |
| N,N-Diethyl-p-phenylenediamine sulfate DPD sulfate | 6283-63-2 | 0.1-5 |
| Other components below reportable levels. | | |

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. FIRST AID MEASURES

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

Skin contact Immediately flush skin with running water for at least 20 minutes. Immediately take off all contaminated clothing. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

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. Call a physician or poison control center immediately.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Never give anything by mouth to a person who is unconscious or is having convulsions. Do NOT induce vomiting unless directed by physician. If vomiting occurs, keep head low so that stomach content does not get into the lungs.

Most important symptoms/effects, acute and delayed: Direct skin contact may cause corrosive skin burns, deep ulcerations, and possibly permanent scarring. Direct contact with concentrated solutions may be corrosive to the eyes and may cause severe damage, including blindness. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Inhalation of mists can cause severe respiratory irritation. Symptoms may include coughing, choking, and wheezing. Inhalation could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.

Indication of immediate medical attention and special treatment needed: Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep person under observation. Symptoms may be delayed.

Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus, and possibly the digestive tract. Symptoms may include abdominal pain, vomiting, burns, perforations, bleeding.

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.

Firefighting 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 it can be done 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: Not combustible; however, the product can react with metals to form flammable and explosive hydrogen gas.

Hazardous combustion products: Carbon oxides. Nitrogen oxides. Phosphines. Sulfur oxides. Other irritating fumes and smoke.

6. ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up: 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 mist or vapor. 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. This product is miscible in water.

Large Spills: Dike the spilled material where this is possible. Stop leak if it can be done without risk. Absorb spillage

to prevent material damage. Absorb in vermiculite, dry sand or earth, and place into containers. Prevent entry into waterways, sewer, basements, or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb spillage with noncombustible, absorbent material. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for reuse. For waste disposal, refer to section 13 of the SDS. Dilute acid with water and neutralize with dilute base. If not recoverable, dilute with water or flush to holding area and neutralize. 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, watercourses, or onto the ground.

7. HANDLING AND STORAGE

Precautions for safe handling: Do not breathe mist or vapor. 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 metals and other incompatibles. Observe good industrial hygiene practices. Label containers appropriately.

Conditions for safe storage, including any incompatibilities: Store locked up. Store in corrosive-resistant container with a corrosive-resistant inner liner. Store in original tightly closed container. Keep only in the original container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (refer to section 10 of the SDS).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits: No occupational 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. Eyewash facilities and emergency shower must be available when handling this product.

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 dust/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: Always observe good personal hygiene measures, such as washing after handling the material.

Considerations: and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contamination.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|-------------------------------------|
| Appearance | |
| Physical state | Liquid |
| Form | Liquid |
| Color | Clear colorless or nearly colorless |
| Odor | Odorless |
| Odor threshold | Not available |
| pH | 1.3 |
| Melting point/freezing point | Not available |
| Initial boiling point and boiling range | 212°F (100°C) |
| Flash point | Not applicable (does not burn) |
| Evaporation rate | Not available |
| 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 | 17 mm Hg |
| Vapor density | 0.65 |
| Relative density | 1.01 g/cm ³ |
| Solubility(ies) | |
| Solubility (water) | Soluble in all proportions |
| Partition coefficient (n-octanol/water) | Not applicable |
| Auto-ignition temperature | Not applicable |
| Decomposition temperature | Not available |
| Viscosity | Not available |
| Other information | |
| Explosive properties | Not applicable |
| Oxidizing properties | Not applicable |
| Percent volatile | 99% |
| Specific gravity | 1.01 |

10. STABILITY AND REACTIVITY

Reactivity: This product is stable and nonreactive under normal conditions of use, storage, 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. Avoid high temperatures.

Incompatible materials: Metal compounds. Oxidizers. 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 | Causes severe skin burns |
| Eye contact | Causes eye damage |
| Ingestion | Causes digestive tract burns |
| Most important symptoms/effects, acute and delayed | |

Direct skin contact may cause corrosive skin burns, deep ulcerations, and possibly permanent scarring. Direct contact with concentrated solutions may be corrosive to the eyes and may cause severe damage, including blindness. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Inhalation of mists can cause severe respiratory irritation. Symptoms may include coughing, choking, and wheezing. Inhalation could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.

Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus, and possibly the digestive tract. Symptoms may include abdominal pain, vomiting, burns, perforations, bleeding.

Acute toxicity: This product is not classified as an acute toxicity hazard. See below for individual ingredient acute toxicity data.

| Components | Species | Test Results |
|--|---------|---------------|
| N,N-Diethyl-p-phenylenediamine sulfate (6283-63-2) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | Not available |
| Inhalation | | |
| LC50 | Rat | Not available |
| Oral | | |
| LD50 | Rat | 450 mg/kg |
| Trade secret (CAS, Proprietary) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | >7940 mg/kg |
| Deionized water (CAS 7732-18-5) | | |

| | | |
|---|---|---------------|
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | Not available |
| Inhalation | | |
| LC50 | Rat | Not available |
| Oral | | |
| LD50 | Rat | >89840 mg/kg |
| Skin corrosion/irritation | Causes severe skin burns and eye damage | |
| Serious eye damage/eye irritation | | |
| Causes serious eye damage | | |
| 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 listed | | |
| Reproductive toxicity: This product is not expected to cause reproductive or developmental effects. | | |
| Specific target organ toxicity, single exposure | | |
| Specific target organ toxicity, repeated exposure | | |
| Not classified as a specific target organ toxicity – single exposure | | |
| Not classified as a specific target organ toxicity – repeated exposure | | |
| Aspiration toxicity | Not expected to be an aspiration hazard | |
| Chronic effects: | Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. | |

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 |
|------------|---------|--------------|
|------------|---------|--------------|

Trade secret (CAS, Proprietary) – Aquatic

Acute

Algae

| | | |
|------|--|---------------------|
| EC50 | Green algae (<i>Pseudokirchneriella subcapitata</i>) | 7.23 mg/L, 72 hours |
|------|--|---------------------|

Fish

| | | |
|------|---------------------------------|--------------------|
| NOEC | Rainbow trout, donaldson trout) | 195 mg/L, 96 hours |
|------|---------------------------------|--------------------|

Oncorhynchus mykiss)

Chronic

Crustacea

| | | |
|------|-------------------------------------|--------------------|
| NOEC | Water flea (<i>Daphnia magna</i>) | 6.75 mg/L, 28 days |
|------|-------------------------------------|--------------------|

Persistence and degradability Not available

Bioaccumulative potential Not available

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 CONSIDERATION

Disposal instructions: Collect and reclaim or dispose of in sealed containers at licensed waste disposal site.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations: Dispose of in accordance with all applicable regulations.

Hazardous waste code: The waste code should be assigned in discussion with 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. TRANSPORT INFORMATION

DOT

UN number UN3265
 UN proper shipping name Corrosive liquid, acidic, organic, N.O.S. (Phosphorous-based organic acid)
 Transport hazard class(es)
 Class 8
 Subsidiary risk Not listed
 Label(s) 8
 Packing group III
 Special precautions for user Read safety instructions, SDS, and emergency procedures before handling.
 Special provisions B2, IB2, T11, TP2, TP27
 Packaging exceptions 154
 Packaging, non-bulk 202
 Packaging, bulk 242

IATA

UN number UN3265
 UN proper shipping name: Corrosive liquid, acidic, organic, N.O.S. (Phosphorous-based organic acid)
 Transport hazard class(es)
 Class 8
 Subsidiary risk Not listed
 Packing group III
 Environmental hazards Not listed
 ERG code 8L
 Special precautions for user Read safety instructions, SDS, and emergency procedures before handling.
 Other information
 Passenger and cargo aircraft Allowed
 Cargo aircraft only Allowed

IMDG

UN number UN3265
 UN proper shipping name Corrosive liquid, acidic, organic, N.O.S. (Phosphorous-based organic acid)
 Transport hazard class(es)
 Class 8
 Subsidiary risk Not listed
 Packing group III
 Environmental hazards
 Marine pollutant Not listed
 EmS F-A, S-B
 Special precautions for user Read safety instructions, SDS, and emergency procedures before handling.
 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

DOT

IATA; IMDG

This substance/mixture is not intended to be transported in bulk.



15. REGULATORY INFORMATION

U.S. federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory list.

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

Not regulated

CERCLA Hazardous Substance (40 CFR 302.4)

Not regulated

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)

Not regulated

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

Not regulated

U.S. state regulations

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

Not regulated

Massachusetts Right-to-Know Act

Not regulated

New Jersey Worker and Community Right-to-Know Act

Not regulated

Pennsylvania Worker and Community Right-to-Know Act

Not regulated

Rhode Island Right-to-Know Act

Not regulated

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 (yes/no)* | Inventory name | On inventory |
|-------------------------------------|---|--------------|
| 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) | yes |
| 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 |

16. OTHER INFORMATION

Notice

Aqua Chemical Supply, Inc. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this SDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis. These can be obtained from your local Aqua Chemical Supply, Inc. sales office.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Aqua Chemical Supply, Inc. makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Aqua Chemical Supply, Inc.'s control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.