

## 1. Identification

|   |  |                       |  |
|---|--|-----------------------|--|
| <b>Product identifier</b>                                     | <b>DIETHYLENETRIAMINEPENTAACETIC ACID</b>  |                       |  |
| <b>Other means of identification</b>                          |  |                       |  |
| <b>Product code</b>   | 568  |                       |  |
| <b>CAS number</b>   | 67-43-6  |                       |  |
| <b>Synonyms</b>   | DTPA   |                       |  |
| <b>Recommended use</b>  | professional, scientific and technical activities: other professional, scientific and technical activities |                       |  |
| <b>Recommended restrictions</b>                               | None known.  |                       |  |
| <b>Manufacturer/Importer/Supplier/Distributor information</b> |  |                       |  |
| <b>Manufacturer</b>   |  |                       |  |
| <b>Company name</b>   | GFS Chemicals, Inc.  |                       |  |
| <b>Address</b>  | P.O. Box 245<br>Powell, OH 43065<br>United States  |                       |  |
| <b>Telephone</b>  | Phone  | 740-881-5501          |  |
|   | Toll Free  | 800-858-9682          |  |
|   | Fax  | 740-881-5989          |  |
| <b>Website</b>  | www.gfschemicals.com   |                       |  |
| <b>E-mail</b>   | service@gfschemicals.com   |                       |  |
| <b>Emergency phone number</b>                                 | Emergency Assistance   | Chemtrec 800-424-9300 |  |

## 2. Hazard(s) identification

|                              |   |   |
|------------------------------|---|---|
| <b>Physical hazards</b>      | Not classified.                                 |   |
| <b>Health hazards</b>        | Skin corrosion/irritation                       | Category 2                              |
|                              | Serious eye damage/eye irritation               | Category 2A                             |
|                              | Carcinogenicity                                 | Category 2                              |
|                              | Specific target organ toxicity, single exposure | Category 3 respiratory tract irritation |
| <b>Environmental hazards</b> | Not classified.                                 |   |
| <b>OSHA defined hazards</b>  | Not classified.                                 |   |
| <b>Label elements</b>        |   |   |



|  |   |
|--|---|
| <b>Signal word</b>                               | Warning   |
| <b>Hazard statement</b>                          | Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer.   |
| <b>Precautionary statement</b>                   |   |
| Prevention                                       | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.  |
| Response   | IF ON SKIN: Wash with plenty of soap and water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. |
| Storage  | Store in a well-ventilated place. Keep container tightly closed. Store locked up.   |
| Disposal   | Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.  |
| <b>Hazard(s) not otherwise classified (HNOC)</b> | None known.   |
| <b>Supplemental information</b>                  | None.   |

### 3. Composition/information on ingredients

#### Substances

| Chemical name                      | Common name and synonyms | CAS number | %   |
|------------------------------------|--------------------------|------------|-----|
| DIETHYLENETRIAMINEPENTAACETIC ACID | DTPA                     | 67-43-6    | 100 |

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

|   |  |
|---|--|
| <b>Inhalation</b>   | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.  |
| <b>Skin contact</b>   | Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.  |
| <b>Eye contact</b>  | Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.                             |
| <b>Ingestion</b>  | Rinse mouth. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not use mouth-to-mouth method if victim ingested the substance.  |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Dusts may irritate the respiratory tract, skin and eyes. Skin irritation. May cause redness and pain.                                      |
| <b>Indication of immediate medical attention and special treatment needed</b> | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.   |
| <b>General information</b>  | IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

### 5. Fire-fighting measures

|  |  |
|--|--|
| <b>Suitable extinguishing media</b>                                  | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).   |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.   |
| <b>Specific hazards arising from the chemical</b>                    | None known.  |
| <b>Special protective equipment and precautions for firefighters</b> | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. |
| <b>Fire fighting equipment/instructions</b>                          | Use water spray to cool unopened containers.   |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials.   |
| <b>General fire hazards</b>  | No unusual fire or explosion hazards noted.  |

### 6. Accidental release measures

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. 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 protection, see section 8 of the SDS.  |
| <b>Methods and materials for containment and cleaning up</b>               | <p>Refer to attached safety data sheets and/or instructions for use. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent entry into waterways, sewers, basements or confined areas. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect dust using a vacuum cleaner equipped with HEPA filter. Should not be released into the environment. Stop the flow of material, if this is without risk.</p> <p>Large Spills: Wet down with water and dike for later disposal. Absorb in vermiculite, dry sand or earth and place into containers. Shovel the material into waste container. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p> |
| <b>Environmental precautions</b>   | Avoid discharge into drains, water courses or onto the ground.  |

## 7. Handling and storage

### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

#### U.S. - OSHA

| Material  | Type | Value    | Form         |
|---|------|----------|--------------|
| DIETHYLENETRIAMINEPEN<br>TAACETIC ACID (CAS<br>67-43-6) | PEL  | 15 mg/m3 | (total dust) |

#### ACGIH

| Material  | Type | Value    | Form                   |
|---|------|----------|------------------------|
| DIETHYLENETRIAMINEPEN<br>TAACETIC ACID (CAS<br>67-43-6) | TWA  | 3 mg/m3  | (respirable particles) |
|   |      | 10 mg/m3 | (inhalable particles)  |

### 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. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles).

#### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves.

##### Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

#### Respiratory protection

Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Wear respirator if there is dust formation.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Observe any medical surveillance requirements. Do not breathe dust. 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 contaminants.

## 9. Physical and chemical properties

### Appearance

#### Physical state

Solid.

#### Form

Powder.

#### Color

White.

### Odor

Odorless.

### Odor threshold

Not available.

### pH

2.5 (saturated solution)

### Melting point/freezing point

Not available.

### Initial boiling point and boiling range

Not available.

### Flash point

Not available.

|   |                     |
|---|---------------------|
| <b>Evaporation rate</b>                             | Not available.      |
| <b>Flammability (solid, gas)</b>                    | Not available.      |
| <b>Upper/lower flammability or explosive limits</b> |                     |
| <b>Flammability limit - lower (%)</b>               | Not available.      |
| <b>Flammability limit - upper (%)</b>               | Not available.      |
| <b>Explosive limit - lower (%)</b>                  | Not available.      |
| <b>Explosive limit - upper (%)</b>                  | Not available.      |
| <b>Vapor pressure</b>                               | Not available.      |
| <b>Vapor density</b>                                | Not available.      |
| <b>Relative density</b>                             | Not available.      |
| <b>Solubility(ies)</b>                              |                     |
| <b>Solubility (water)</b>                           | 5 g/l               |
| <b>Partition coefficient (n-octanol/water)</b>      | Not available.      |
| <b>Auto-ignition temperature</b>                    | > 455 °F (> 235 °C) |
| <b>Decomposition temperature</b>                    | 455 °F (235 °C)     |
| <b>Viscosity</b>                                    | Not available.      |
| <b>Other information</b>                            |                     |
| <b>Explosive properties</b>                         | Not explosive.      |
| <b>Molecular formula</b>                            | C14H23N3O10         |
| <b>Molecular weight</b>                             | 393.35 g/mol        |
| <b>Oxidizing properties</b>                         | Not oxidizing.      |

## 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport.  |
| <b>Chemical stability</b>                 | Material is stable under normal conditions.  |
| <b>Possibility of hazardous reactions</b> | Hazardous polymerization does not occur.   |
| <b>Conditions to avoid</b>                | Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials. Dust may form explosive mixture in air. |
| <b>Incompatible materials</b>             | Strong oxidizing agents.   |
| <b>Hazardous decomposition products</b>   | If product is burned hazardous gases such as oxides of carbon and nitrogen and various hydrocarbons may be produced.                     |

## 11. Toxicological information

|   |   |
|---|---|
| <b>Information on likely routes of exposure</b>                                     |   |
| <b>Inhalation</b>   | Dust may irritate respiratory system. Prolonged inhalation may be harmful.  |
| <b>Skin contact</b>   | Causes skin irritation.   |
| <b>Eye contact</b>  | Causes serious eye irritation.  |
| <b>Ingestion</b>  | Expected to be a low ingestion hazard.  |
| <b>Symptoms related to the physical, chemical and toxicological characteristics</b> | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Dusts may irritate the respiratory tract, skin and eyes. Skin irritation. May cause redness and pain. |
| <b>Information on toxicological effects</b>   |   |
| <b>Acute toxicity</b>   | Not known.  |
| <b>Skin corrosion/irritation</b>  | Causes skin irritation.   |
| <b>Serious eye damage/eye irritation</b>  | Causes serious eye irritation.  |
| <b>Respiratory or skin sensitization</b>  |   |
| <b>Respiratory sensitization</b>  | Not a respiratory sensitizer.   |
| <b>Skin sensitization</b>   | This product is not expected to cause skin sensitization.   |
| <b>Germ cell mutagenicity</b>   | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.  |

**Carcinogenicity** Suspected of causing cancer.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

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

**Specific target organ toxicity - single exposure** May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** The 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.

| Product  | Species | Test Results                           |
|--|---------|--|
| DIETHYLENETRIAMINEPENTAACETIC ACID (CAS 67-43-6) |         |  |
| <b>Aquatic</b>                                   |         |  |
| Crustacea  | LC50    | Water flea ( <i>Daphnia carinata</i> ) |
|  |         | 200 - 400 mg/l, 48 hours               |
|  |         | 168.5 - 678.6 mg/l, 24 hours           |

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** None known.

**Bioaccumulative potential** No data available.

**Mobility in soil** No data available.

**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** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport 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.

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

Not regulated.

Material name: DIETHYLENETRIAMINEPENTAACETIC ACID

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****Hazard categories**

Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312**

Yes

**Hazardous chemical****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.

**US state regulations**

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

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

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(s).

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

**Issue date** May-11-2015

**Revision date** June-06-2017

**Version #** 02

**Disclaimer**

GFS Chemicals, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.