

## 1. Identification

|                                                               |                                                                                                            |                       |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------|
| <b>Product identifier</b>                                     | <b>TETRAMETHYLAMMONIUM HYDROXIDE, SOLUTION, 25% in WATER</b>                                               |                       |
| <b>Other means of identification</b>                          |                                                                                                            |                       |
| <b>Product code</b>                                           | 1204                                                                                                       |                       |
| <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>        | Acute toxicity, oral                                   | Category 4 |
|                              | Acute toxicity, dermal                                 | Category 1 |
|                              | Skin corrosion/irritation                              | Category 1 |
|                              | Serious eye damage/eye irritation                      | Category 1 |
| <b>Environmental hazards</b> | Hazardous to the aquatic environment, long-term hazard | Category 3 |
| <b>OSHA defined hazards</b>  | Not classified.                                        |            |
| <b>Label elements</b>        |                                                        |            |



|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Signal word</b>                               | Danger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Hazard statement</b>                          | Harmful if swallowed. Fatal in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage. Harmful to aquatic life with long lasting effects.                                                                                                                                                                                                                                                                                                                                                            |
| <b>Precautionary statement</b>                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Prevention</b>                                | Do not breathe mist or vapor. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wash thoroughly after handling.                                                                                                                                                                                                                                                                                                      |
| <b>Response</b>                                  | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse. Specific treatment (see this label). |
| <b>Storage</b>                                   | Store locked up.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Disposal</b>                                  | 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

#### Mixtures

| Chemical name                 | Common name and synonyms                   | CAS number | %  |
|-------------------------------|--------------------------------------------|------------|----|
| WATER                         |                                            | 7732-18-5  | 75 |
| TETRAMETHYLAMMONIUM HYDROXIDE | Methanaminium, N,N,N-trimethyl-, hydroxide | 75-59-2    | 25 |

\*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>                                                             | Move to fresh air. Call a physician if symptoms develop or persist.                                                                                                                                                                                                                                                                                                                        |
| <b>Skin contact</b>                                                           | Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.                                                                                                                                                               |
| <b>Eye contact</b>                                                            | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.                                                                                                                                                                                            |
| <b>Ingestion</b>                                                              | Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.                                                                                                                                                                            |
| <b>Indication of immediate medical attention and special treatment needed</b> | Provide general supportive measures and treat symptomatically. 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 victim warm. Keep victim under observation. Symptoms may be delayed.                                                             |
| <b>General information</b>                                                    | Take off immediately all contaminated clothing. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Discard any shoes or clothing items that cannot be decontaminated.                                                                                               |

### 5. Fire-fighting measures

|                                                                      |                                                                                                                                         |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>                                  | Use extinguishing agent suitable for type of surrounding fire. 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>                    | During fire, gases hazardous to health may be formed.                                                                                   |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.                                           |
| <b>Fire fighting equipment/instructions</b>                          | Move containers from fire area if you can do so without risk.                                                                           |
| <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. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. 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 protection, see section 8 of the SDS.                                                                                                                                                                                                                                   |
| <b>Methods and materials for containment and cleaning up</b>               | <p>This product is miscible in water.</p> <p>Large Spills: Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Prevent entry into waterways, sewer, basements or confined areas. Clean up in accordance with all applicable regulations. 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. This material and its container must be disposed of as hazardous waste.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p> |

Material name: TETRAMETHYLAMMONIUM HYDROXIDE, SOLUTION, 25% in WATER

|                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Environmental precautions</b>                                             | Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.                                                                                                                                                                                                                                         |
| <b>7. Handling and storage</b>                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Precautions for safe handling</b>                                         | Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. Wash contaminated clothing before reuse.                                                                                                |
| <b>Conditions for safe storage, including any incompatibilities</b>          | Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).                                                                                                                                                                                                                                                                                                                                                     |
| <b>8. Exposure controls/personal protection</b>                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Occupational exposure limits</b>                                          | No exposure limits noted for ingredient(s).                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Biological limit values</b>                                               | No biological exposure limits noted for the ingredient(s).                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Appropriate engineering controls</b>                                      | 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. Eye wash facilities and emergency shower must be available when handling this product. |
| <b>Individual protection measures, such as personal protective equipment</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Eye/face protection</b>                                                   | Wear safety glasses with side shields (or goggles) and a face shield.                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Skin protection</b>                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Hand protection</b>                                                       | Wear appropriate chemical resistant gloves.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Other</b>                                                                 | Wear appropriate chemical resistant clothing.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Respiratory protection</b>                                                | In case of insufficient ventilation, wear suitable respiratory equipment.                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Thermal hazards</b>                                                       | Wear appropriate thermal protective clothing, when necessary.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>General hygiene considerations</b>                                        | Keep away from food and drink. 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.                                                                                                                                                                                                                                 |
| <b>9. Physical and chemical properties</b>                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Appearance</b>                                                            | Clear.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Physical state</b>                                                        | Liquid.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Form</b>                                                                  | Aqueous solution.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Color</b>                                                                 | Colorless. Light yellow.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Odor</b>                                                                  | Amine-like.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Odor threshold</b>                                                        | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>pH</b>                                                                    | > 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Melting point/freezing point</b>                                          | -13 °F (-25 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Initial boiling point and boiling range</b>                               | 215.6 °F (102 °C) Approximately.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Flash point</b>                                                           | 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>                      | Completely miscible.                |
| <b>Partition coefficient (n-octanol/water)</b> | Not available.                      |
| <b>Auto-ignition temperature</b>               | Not available.                      |
| <b>Decomposition temperature</b>               | Not available.                      |
| <b>Viscosity</b>                               | 3.13 cP                             |
| <b>Other information</b>                       |                                     |
| <b>Density</b>                                 | 1.014 g/cm <sup>3</sup>             |
| <b>Molecular formula</b>                       | (CH <sub>3</sub> ) <sub>4</sub> NOH |
| <b>Molecular weight</b>                        | 91.15 g/mol                         |
| <b>Percent volatile</b>                        | 75 % estimated                      |
| <b>Specific gravity</b>                        | 1.01                                |

## 10. Stability and reactivity

|                                           |                                                                                                |
|-------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | Reacts violently with strong acids. This product may react with oxidizing agents.              |
| <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 high temperatures. Do not mix with other chemicals. Contact with incompatible materials. |
| <b>Incompatible materials</b>             | Acids. Oxidizing agents.                                                                       |
| <b>Hazardous decomposition products</b>   | Trimethylamine. Methyl alcohol. May include oxides of carbon.                                  |

## 11. Toxicological information

### Information on likely routes of exposure

|                     |                                                       |
|---------------------|-------------------------------------------------------|
| <b>Inhalation</b>   | May cause irritation to the respiratory system.       |
| <b>Skin contact</b> | Fatal in contact with skin. Causes severe skin burns. |
| <b>Eye contact</b>  | Causes serious eye damage.                            |
| <b>Ingestion</b>    | Causes digestive tract burns. Harmful if swallowed.   |

|                                                                                     |                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptoms related to the physical, chemical and toxicological characteristics</b> | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Information on toxicological effects

|                                          |                                                        |
|------------------------------------------|--------------------------------------------------------|
| <b>Acute toxicity</b>                    | Fatal in contact with skin. Harmful if swallowed.      |
| <b>Skin corrosion/irritation</b>         | Causes severe skin burns and eye damage.               |
| <b>Serious eye damage/eye irritation</b> | Corrosive to skin and eyes. Causes serious eye damage. |

### Respiratory or skin sensitization

|                                  |                             |
|----------------------------------|-----------------------------|
| <b>Respiratory sensitization</b> | Not available.              |
| <b>Skin sensitization</b>        | Corrosive to skin and eyes. |

|                               |                                                                                                                  |
|-------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Germ cell mutagenicity</b> | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
|-------------------------------|------------------------------------------------------------------------------------------------------------------|

|                        |                                                                                 |
|------------------------|---------------------------------------------------------------------------------|
| <b>Carcinogenicity</b> | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. |
|------------------------|---------------------------------------------------------------------------------|

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Not available.

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

Not available.

|                                                           |                                                                              |
|-----------------------------------------------------------|------------------------------------------------------------------------------|
| <b>Reproductive toxicity</b>                              | This product is not expected to cause reproductive or developmental effects. |
| <b>Specific target organ toxicity - single exposure</b>   | Not classified.                                                              |
| <b>Specific target organ toxicity - repeated exposure</b> | Not classified.                                                              |
| <b>Aspiration hazard</b>                                  | Not available.                                                               |

## 12. Ecological information

|                    |                                                    |
|--------------------|----------------------------------------------------|
| <b>Ecotoxicity</b> | Harmful to aquatic life with long lasting effects. |
|--------------------|----------------------------------------------------|

Material name: TETRAMETHYLAMMONIUM HYDROXIDE, SOLUTION, 25% in WATER

|                                      |                                                                                                                                                                                         |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Persistence and degradability</b> | No data is available on the degradability of this product.                                                                                                                              |
| <b>Bioaccumulative potential</b>     | No data available.                                                                                                                                                                      |
| <b>Mobility in soil</b>              | No data available.                                                                                                                                                                      |
| <b>Other adverse effects</b>         | 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

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Disposal instructions</b>                 | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. Solutions with high pH-value must be neutralized before discharge. |
| <b>Local disposal regulations</b>            | Dispose in accordance with all applicable regulations.                                                                                                                                                                                                                                                                                                                                                      |
| <b>Hazardous waste code</b>                  | The waste code should be assigned in discussion between the user, the producer and the waste disposal company.                                                                                                                                                                                                                                                                                              |
| <b>Waste from residues / unused products</b> | 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).                                                                                                                                                                                            |
| <b>Contaminated packaging</b>                | 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

|                                     |                                                                         |
|-------------------------------------|-------------------------------------------------------------------------|
| <b>UN number</b>                    | UN1835                                                                  |
| <b>UN proper shipping name</b>      | Tetramethylammonium hydroxide solution                                  |
| <b>Transport hazard class(es)</b>   |                                                                         |
| <b>Class</b>                        | 8                                                                       |
| <b>Subsidiary risk</b>              | -                                                                       |
| <b>Label(s)</b>                     | 8                                                                       |
| <b>Packing group</b>                | II                                                                      |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |
| <b>Special provisions</b>           | B2, IB2, T7, TP2                                                        |
| <b>Packaging exceptions</b>         | 154                                                                     |
| <b>Packaging non bulk</b>           | 202                                                                     |
| <b>Packaging bulk</b>               | 242                                                                     |

#### IATA

|                                     |                                                                         |
|-------------------------------------|-------------------------------------------------------------------------|
| <b>UN number</b>                    | UN1835                                                                  |
| <b>UN proper shipping name</b>      | Tetramethylammonium hydroxide, solution                                 |
| <b>Transport hazard class(es)</b>   |                                                                         |
| <b>Class</b>                        | 8                                                                       |
| <b>Subsidiary risk</b>              | -                                                                       |
| <b>Packing group</b>                | II                                                                      |
| <b>Environmental hazards</b>        | No.                                                                     |
| <b>ERG Code</b>                     | 8L                                                                      |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |
| <b>Other information</b>            |                                                                         |
| <b>Passenger and cargo aircraft</b> | Allowed.                                                                |
| <b>Cargo aircraft only</b>          | Allowed.                                                                |

#### IMDG

|                                     |                                                                         |
|-------------------------------------|-------------------------------------------------------------------------|
| <b>UN number</b>                    | UN1835                                                                  |
| <b>UN proper shipping name</b>      | TETRAMETHYLAMMONIUM HYDROXIDE SOLUTION                                  |
| <b>Transport hazard class(es)</b>   |                                                                         |
| <b>Class</b>                        | 8                                                                       |
| <b>Subsidiary risk</b>              | -                                                                       |
| <b>Packing group</b>                | II                                                                      |
| <b>Environmental hazards</b>        |                                                                         |
| <b>Marine pollutant</b>             | No.                                                                     |
| <b>EmS</b>                          | F-A, S-B                                                                |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not established.

DOT



IATA; IMDG



## 15. Regulatory information

### US 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 List (40 CFR 302.4)

Not listed.

#### SARA 304 Emergency release notification

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 listed.

#### SARA 311/312

No

#### 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

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

Not listed.

#### US. Massachusetts RTK - Substance List

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

TETRAMETHYLAMMONIUM HYDROXIDE (CAS 75-59-2)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. Rhode Island RTK**

Not regulated.

**US. 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(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)               | No                     |
| 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** July-30-2015

**Version #** 01

**Disclaimer** GFS Chemicals 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** Product and Company Identification: Alternate Trade Names  
Composition / Information on Ingredients: Ingredients  
Physical & Chemical Properties: Multiple Properties  
Transport Information: Proper Shipping Name/Packing Group