

## Safety Data Sheet

| Section 1: Product & Company Identification |   |  |
|---|---|--|
| Product Name:                               | Guanidine Thiocyanate 6M Solution   |  |
| Product #:                                  | G-2564  |  |
| Synonyms:                                   | -   |  |
| Supplier:                                   | AG Scientific Holdings, LLC<br>9950 Scripps Lake Drive, Suite 104<br>San Diego CA 92131<br>Tele# + 858-452-9925 |  |
| Emergency Tele#:                            | ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585  |  |

| Section 2: Composition / Information on Ingredients |           |         |
|---|-----------|---------|
| Component CAS# % Composition                        |           |         |
| Water   | 7732-18-5 | 20 - 30 |
| Guanidine Thiocyanate                               | 593-84-0  | 70 - 80 |

| Section 3: | Hazards Identification |  |
|------------|------------------------|--|
| Symbols    |                        |  |

| HMIS Rating   |                       |              |                 |
|---------------|-----------------------|--------------|-----------------|
| Health Hazard | Chronic Health Hazard | Flammability | Physical Hazard |
| 3             |                       | 0            | 0               |

| NF | PA | Ra  | ting | a |
|----|----|-----|------|---|
|    |    | 1.0 |      | 9 |

| Health Hazard | Fire Hazard | Reactivity Hazard |
|---------------|-------------|-------------------|
| 3             | 0           | 0                 |



## **Section 4: First Aid Measures**

| General     | Consult a doctor and show this safety data sheet.  |
|-------------|--|
| Overview:   |  |
| Inhalation: | Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.             |
| Skin:       | Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.  |
| Eyes:       | Flush with copious amounts of water for at least 15 minutes. Consult a doctor.   |
| Ingestion:  | Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor. |
|             | See section 11 for more detailed information on health effects & symptoms.   |

| SECTION 5: Fire Fighting Measures                    |   |  |
|--|---|--|
| Flammability of the product:                         | No data available   |  |
| Extinguishing<br>Media:                              | Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide  |  |
| Hazardous<br>thermal<br>(de)composition<br>products: | No data available   |  |
| Special Fire<br>Fighting<br>Procedures:              | Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus. |  |
| Flash Point:   | No data available   |  |

#### Section 6: Accidental Release Measures

| Personal      | Do not take action without suitable protective clothing - see section 8 of SDS.  |
|---------------|--|
| Precautions:  | Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid   |
|               | breathing vapors, mist, dust, or gas.  |
| Environmental | Do not let product enter drains.   |
| Precautions:  |  |
| Methods for   | Cover spillage with suitable absorbent material. Using non-spark tools, sweep  |
| Clean-up:     | up material and place in an appropriate container. Decontaminate spill site<br>with 10% caustic solution and ventilate area until after disposal is complete.<br>Hold all material for appropriate disposal as described under section 13 of<br>SDS. |

## **SECTION 7: Handling & Storage**



| Storage:  | Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Hygroscopic: Keep in a dry place. Store at room temperature.   |
|-----------|--|
| Handling: | Use in a chemical fume hood, with air supplied by an independent system.<br>Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of<br>dust and aerosols. Use in a well-ventilated area. Keep away from sources of<br>ignition. Avoid prolonged or repeated exposure. |

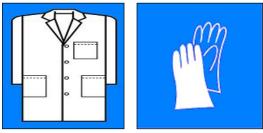
## **SECTION 8: Exposure controls / Personal Protection**

#### **Respiratory Protection:**



Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Skin and Body:



Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Wear appropriate protective clothing. Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Eyes:



|                                      | Face shield and safety glasses Use equipment for eye protection  |
|--------------------------------------|--|
|                                      | tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).  |
| Ventilation/Engineering<br>Measures: | Use in a fume hood where applicable. Ensure all engineering<br>measures described under section 7 of SDS are in place. Ensure<br>laboratory is equipped with a safety shower and eye wash station. |
| Hygiene:                             | Handle in accordance with good industrial hygiene and safety practice.   |
| Other:                               | Contains no substances with occupational exposure limit values.  |

## **SECTION 9: Physical and Chemical Properties**

| Appearance &             | Clear colorless liquid |
|--------------------------|------------------------|
| Odor:                    |                        |
| Formula                  | N/A                    |
| Molecular Wt.            | N/A                    |
| Melting Pt.              | No data available      |
| Boiling Pt.              | No data available      |
| Density:                 | No data available      |
| Vapor Pressure:          | No data available      |
| <b>Evaporation Rate:</b> | No data available      |
| Vapor Density:           | No data available      |
| Solubility:              | Water                  |
| Flash Point:             | No data available      |
| Autoignition             | No data available      |
| Temp:                    |                        |

| SECTION 10: Stability and Reactivity |                                      |
|--------------------------------------|--------------------------------------|
| Stability:                           | Stable under recommended conditions. |
| Hazardous                            | No data available                    |
| decomposition                        |                                      |
| products:                            |                                      |
| Materials to Avoid:                  | No data available                    |
| Conditions to avoid:                 | No data available                    |

## **SECTION 11:** Toxicological Information



| RTECS#:   | N/A   |
|---|---|
| ACUTE Toxicity:   | LD50 Oral = 593 mg/kg (Rat)<br>LD50 Intraperitoneal = 300 mg/kg (Mouse)   |
| CHRONIC Toxicity:   | No data available   |
| Chronic Exposure:<br>Carcinogen:<br>Mutagen:<br>Teratogen:<br>Reproductive: | <ul> <li>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.</li> <li>AGGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by ACGIH.</li> <li>NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated human carcinogen by NTP.</li> <li>OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by NTP.</li> <li>OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by OSHA.</li> <li>EPA: No classification on carcinogenic data is available from EPA</li> </ul> |

| SECTION 12: Ecological Information |  |  |
|------------------------------------|--|--|
| Ecotoxicity:                       | Toxicity to daphnia and other aquatic invertebrates- Daphnia - 42.4 mg/l - 48 h.   |  |
| Mobility:                          | No data available  |  |
| Persistence and                    | No data available  |  |
| degradability:                     |  |  |
| Bioaccumulative                    | No data available  |  |
| potential:                         |  |  |
| Other adverse                      | No data available  |  |
| effects:                           |  |  |
| Corrosivity                        | No data available  |  |
| Characteristic:                    |  |  |
| General Notes:                     | To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. |  |

## **SECTION 13:** Disposal Considerations

| Residue Waste or<br>Unused product: | Whatever cannot be saved for recovery or recycling should be managed<br>in an appropriate and approved waste disposal facility. Processing, use<br>or contamination of this product may change the waste management<br>options. State and local disposal regulations may differ from federal<br>disposal regulations. |
|-------------------------------------|---|
| Contaminated                        | Dispose of container and unused contents in accordance with federal,  |
| Packaging:                          | state and local requirements.   |

# **SECTION 14:** Transportation Information



| UN ID#:             | UN 1760  |
|---------------------|--|
| ADR / RID (LAND):   | UN 1760  |
|                     | Corrosive Liquid, N.O.S. (Guanidinium Thiocyanate) |
|                     | Hazard Class: 8                                    |
|                     | Packaging Group: III                               |
| DOT regulations:    | UN 1760  |
|                     | Corrosive Liquid, N.O.S. (Guanidinium Thiocyanate) |
|                     | Hazard Class: 8                                    |
|                     | Packaging Group: III                               |
| IMDG/IMO (SEA):     | UN 1760  |
|                     | Corrosive Liquid, N.O.S. (Guanidinium Thiocyanate) |
|                     | Hazard Class: 8                                    |
|                     | Packaging Group: III                               |
| IATA/DGR (AIR):     | UN 1760  |
|                     | Corrosive Liquid, N.O.S. (Guanidinium Thiocyanate) |
|                     | Hazard Class: 8                                    |
|                     | Packaging Group: III                               |
| Special Provisions: | N/A  |

| SECTION 15: Re  | gulatory Information  |
|-----------------|---|
| Health Phrases: | H302 Harmful if swallowed   |
|                 | H314 Causes severe skin burns and eye damage.                             |
|                 | H318 Causes serious eye damage  |
|                 | H402 Harmful to aquatic life  |
|                 | H412 Harmful to aquatic life with long lasting effects.                   |
| Risk Phrases:   | P260 Avoid breathing dust/fume/gas/mist/vapors/spray.                     |
|                 | P264 Wash skin thoroughly after handling                                  |
|                 | P270 Do not eat, drink or smoke when using this product.                  |
|                 | P273 Avoid release to the environment                                     |
|                 | P280 Wear protective gloves/protective clothing/eye protection/face       |
|                 | protection.   |
|                 | P301 + P312 IF SWALLOWED: Call a POISON CENTER or                         |
|                 | doctor/physician if you feel unwell.                                      |
|                 | P301+ P330+ P331 IF SWALLOWED: rinse mouth. Do NOT induce                 |
|                 | vomiting.   |
|                 | P303+ P61+ P353 IF ON SKIN (or hair): Remove/ Take off immediately all    |
|                 | contaminated clothing. Rinse skin with water/ shower.                     |
|                 | P304 + P340 IF INHALED: If breathing is difficult, remove victim to fresh |
|                 | air and keep at rest in a position comfortable for breathing.             |
|                 | P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several    |
|                 | minutes. Remove contact lenses, if present and easy to do. Continue       |
|                 | rinsing.<br>P310 Immediately call a POISON CENTER or doctor/ physician.   |
|                 |   |
|                 | P321 Specific treatment (see. on this label).<br>P330 Rinse mouth.        |
|                 |   |
|                 | P363 Wash contaminated clothing before reuse                              |



|                 | P405 Store locked up.   |
|-----------------|---|
|                 | P501 Dispose of contents/ container to an approved waste disposal plant.        |
| Safety Phrases: | N/A   |
| EU Regulations: | N/A   |
| US Regulations: | TSCA: Not listed  |
|                 | California Proposition 65: No products were found                               |
| U.S. Federal    | SARA 302/304 emergency planning and notification: No products were              |
| Regulations:    | found.  |
|                 | SARA 311/312 MSDS distribution-chemical inventory-hazard                        |
|                 | identification: Acute Health Hazard   |
|                 | SARA 313 toxic chemicals notification and release reporting: No products        |
|                 | were found.   |
|                 |   |
|                 | Clean Water Act (CWA) 307: No products were found.                              |
|                 | Clean Water Act (CWA) 311: No products were found.                              |
|                 | Clean Air Act (CAA) 112 accidental release prevention: No products were found.  |
|                 | Clean Air Act (CAA) 112 regulated flammable substances: No products were found. |
|                 | Clean Air Act (CAA) 112 regulated toxic substances: No products were found.     |
|                 | OSHA: Acute toxicity - oral (Cat. 4), Skin corrosion (Cat. 1C), Serious eye     |
|                 | damage (Cat. 1), Acute aquatic toxicity (Cat. 3), Chronic aquatic toxicity      |
|                 | (Cat. 3)  |
| WHMIS (Canada): | This product has been classified in accordance with the hazard criteria of      |
|                 | the Controlled Products Regulations (CPR) and the SDS contains all the          |
|                 | information required by the CPR.  |

#### **SECTION 16: Other Information**

**LIABILITY STATEMENT:** The above information is believed to be correct but does not purport to be allinclusive and shall be used only as a guide. AG Scientific shall not be held liable for any damages resulting from handling or from contact with the above product. AG Scientific products are for research purposes only. Not for human use or consumption.