1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Mercury(II) thiocyanate

CAS-No. : 592-85-8

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Research and Development

1.3 Details of the supplier of the safety data sheet

Company : GTI Laboratories Supplies
5611 Northdale Street
HOUSTON TX 77087

Telephone : +1 804-240-4719

1.4 Emergency telephone number

Emergency Phone # : +1 804-240-4719

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 2), H300
Acute toxicity, Inhalation (Category 2), H330
Acute toxicity, Dermal (Category 1), H310
Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Nervous system, H373
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word : Danger

Hazard statement(s)

H300 + H310 + H330 Fatal if swallowed, in contact with skin or if inhaled
H373 May cause damage to organs (Nervous system) through prolonged or repeated exposure if inhaled.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing.
Wear respiratory protection.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
IF ON SKIN: Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
Get medical advice/attention if you feel unwell.
Take off contaminated clothing and wash before reuse.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Synonyms</th>
<th>Mercuric thiocyanate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Thiocyanic acid, mercury(II) salt</td>
</tr>
<tr>
<td></td>
<td>Mercuric isothiocyanate</td>
</tr>
<tr>
<td></td>
<td>Mercuric sulfocyanide</td>
</tr>
<tr>
<td></td>
<td>Mercury(dithiocyanate)</td>
</tr>
</tbody>
</table>

| Formula | C$_2$HgN$_2$S$_2$ |
| Molecular weight | 316.75 g/mol |
| CAS-No. | 592-85-8 |
| EC-No. | 209-773-0 |
| Index-No. | 080-002-00-6 |

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury(dithiocyanate)</td>
<td>Acute Tox. 2; Acute Tox. 1; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H300 + H310 + H330, H373, H410</td>
<td>&lt;= 100 %</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2  Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labeling (section 2.2) or in section 11

4.3  Indication of any immediate medical attention and special treatment needed
No data available

5. FIREFIGHTING MEASURES
5.1  Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2  Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides, sulfur oxides, mercury/mercury oxides.

5.3  Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4  Further information
No data available

6. ACCIDENTAL RELEASE MEASURES
6.1  Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2  Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3  Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4  Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE
7.1  Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2  Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place. Light sensitive. Moisture sensitive.

7.3  Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1  Control parameters
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury dithiocyanate</td>
<td>592-85-8</td>
<td>TWA</td>
<td>0.025 mg/m3</td>
<td>USA, ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td>Remarks</td>
<td></td>
<td></td>
<td></td>
<td>Central Nervous System impairment Kidney damage Substances for which there is a Biological Exposure Index or Indices (see BE® section)</td>
</tr>
</tbody>
</table>
### Not classifiable as a human carcinogen
Danger of cutaneous absorption varies

<table>
<thead>
<tr>
<th>TWA</th>
<th>USA, ACGIH Threshold Limit Values (TLV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.025000 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Central Nervous System impairment
Kidney damage
Substances for which there is a Biological Exposure Index or Indices (see BEI® section)
Not classifiable as a human carcinogen
Danger of cutaneous absorption varies

<table>
<thead>
<tr>
<th>TWA</th>
<th>USA, NIOSH Recommended Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.050000 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Potential for dermal absorption

<table>
<thead>
<tr>
<th>C</th>
<th>USA, NIOSH Recommended Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.100000 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Potential for dermal absorption

See Table Z-2

See Table Z-2

<table>
<thead>
<tr>
<th>TWA</th>
<th>USA, NIOSH Recommended Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Potential for dermal absorption

<table>
<thead>
<tr>
<th>C</th>
<th>USA, NIOSH Recommended Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

### 8.2 Exposure controls

#### Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### Personal protective equipment

**Eye/face protection**
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).

**Skin protection**
Handle with gloves, must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min

This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection**
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.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

| a) Appearance Form: solid |
| b) Odor No data available |
| c) Odor Threshold No data available |
| d) pH No data available |
| e) Melting point/freezing point Melting point/range: 165 °C (329 °F) - dec. |
| f) Initial boiling point and boiling range No data available |
| g) Flash point 120 °C (248 °F) - closed cup |
| h) Evaporation rate No data available |
| i) Flammability (solid, gas) No data available |
| j) Upper/lower flammability or explosive limits No data available |
| k) Vapor pressure No data available |
| l) Vapor density No data available |
| m) Relative density 3.71 g/cm3 at 25 °C (77 °F) |
| n) Water solubility No data available |
| o) Partition coefficient: n-octanol/water No data available |
| p) Auto-ignition temperature No data available |
| q) Decomposition temperature No data available |
| r) Viscosity No data available |
| s) Explosive properties No data available |
| t) Oxidizing properties No data available |

#### 9.2 Other safety information

No data available

### 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity
No data available
10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Avoid moisture. Light.

10.5 Incompatible materials
Strong oxidizing agents

10.6 Hazardous decomposition products
Other decomposition products - No data available. In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
No data available

Inhalation: No data available
Dermal: No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitization

Germ cell mutagenicity
No data available

Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Mercury dithiocyanate)
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
Inhalation - May cause damage to organs through prolonged or repeated exposure. - Nervous system

Aspiration hazard
No data available

Additional Information
RTECS: Not data available
May cause nervous system disturbances.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No data available
12.2 Persistence and degradability
No data available

12.3 Bio accumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

UPS Domestic Ground Shipping
Small Quantity
maximum 30 grams per container
Mercury thiocyanate, 6.1, UN1646, II

DHL Air IATA International Shipping
Dangerous Goods in Excepted Quantities
maximum 1 grams per container
Mercury thiocyanate, 6.1, UN1646, II
Foreign Trade Commodity Code: 2808.00.0010

15. REGULATORY INFORMATION

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard

Massachusetts Right To Know Components

Mercury dithiocyanate
CAS-No. 592-85-8
Revision Date 1993-04-24

Pennsylvania Right To Know Components

Mercury dithiocyanate
CAS-No. 592-85-8
Revision Date 1993-04-24

New Jersey Right To Know Components

Mercury dithiocyanate
CAS-No. 592-85-8
Revision Date 1993-04-24
Mercury dithiocyanate 592-85-8 1993-04-24

California Prop. 65 Components
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
Mercury dithiocyanate

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity
Aquatic Acute Acute aquatic toxicity
Aquatic Chronic Chronic aquatic toxicity
H300 Fatal if swallowed.
H300 + H310 + Fatal if swallowed, in contact with skin or if inhaled
H330
H310 Fatal in contact with skin.
H330 Fatal if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

HMIS Rating
Health hazard: 4
Chronic Health Hazard: 1
Flammability: 0
Physical Hazard

NFPA Rating
Health hazard: 4
Fire Hazard: 1
Reactivity Hazard: 0

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regarding to appropriate safety precautions. It does not represent any guarantee of the properties of the product. GTI Laboratories Supplies and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Preparation Information
GTI Laboratories Supplies
Product Safety & Health