SECTION I - IDENTIFICATION

ADDRESS: ........................................... 5960 W. PARKER RD, STE 278 #235
PLANO, TX 75093

EMERGENCY PHONE NUMBER: ............... (224) 774-2238

PRODUCT NAME: ................................ Perchloroethylene

CHEMICAL FAMILY: ............................

CAS NUMBER: ................................. 127-18-4

SECTION II - HAZARDOUS IDENTIFICATION

GHS CLASSIFICATION:

Classification
Aspiration Hazard Category 2
Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2A
Specific target organ toxicity, single exposure, N Category 3
Germ Cell Mutagenicity Category 2
Carcinogenicity Category 1A, 1B
Reproductive Toxicity Category 1A, 1B
Specific target organ toxicity, repeated exposure Category 1
Hazardous to the aquatic environment, acute hazard Category 2
Hazardous to the aquatic environment, long-term hazard Category 2

DANGER!

GHS LABEL:

Hazard Statements
H305 May be fatal if swallowed and enters airways
H315 Causes skin irritation
H319 Causes serious eye irritation
H336 May cause dizziness or drowsiness
H341 Suspected of causing genetic defects
H350 May cause cancer
Precautionary Statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required.

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P302+352 IF ON SKIN: Wash with soap and water.

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so - continue rinsing.

P308+313 IF exposed or concerned: get medical advice/attention.

P312 Call a POISON CENTER or a doctor/physician if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P331 Do NOT induce vomiting.

P332+313 If skin irritation occurs: get medical advice/attention.

P337+313 If eye irritation persists get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container to an approved waste disposal plant.
SECTION III - COMPOSITION/INFORMATION ON INGREDIENTS

The precise composition of this product is proprietary information. In the event of a medical emergency, a complete disclosure will be provided to medical personnel.

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS #</th>
<th>Component%</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrachloroethylene</td>
<td>127-18-4</td>
<td>100</td>
<td>25 ppm</td>
<td>25 ppm</td>
</tr>
</tbody>
</table>

SECTION IV - FIRST AID MEASURES

Contact with eyes:  Flush with water for 15 minutes. Seek immediate medical attention.

Skin contact: Wash exposed areas with water and mild soap. Remove contaminated clothing immediately and launder before reuse. If irritations persist, seek immediate medical attention.

Inhalation: Remove victim to fresh air. Administer oxygen or artificial respiration if breathing is affected or stopped. Seek immediate medical attention.

Ingestion: If swallowed. Do not induce vomiting. Seek immediate medical attention.

SECTION V - FIREFIGHTING MEASURES

Suitable Extinguishing Media:  Water fog, foam, CO2, dry chemical.

Special Fire Fighting Procedures  Use self-contained breathing apparatus and full bunker gear in fire areas. Evacuate all unprotected personnel from area. Keep containers cool with water fog to minimize swelling taking care not to spread flames with water used for cooling.

Unusual Fire Fighting Hazards:  Product is flammable and may be ignited by heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights or mechanical/electrical equipment). Vapors are heavier than air and may accumulate in low areas. Vapors may travel considerable distances to a source of ignition where they can ignite, flashback or explode. May create vapor/air explosion hazard indoors, outdoors or in sewers. If container is not properly cooled, it can explode in the heat of a fire.

SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal Precautions:  Keep all sources of ignition and hot metal surfaces away from spill or release. Evacuate all unprotected personnel from the area.

Environmental Precautions: Prevent liquid from entering drains, sewers or waterways. Contain spill if it can be done with minimal risk. Notify proper authorities.
Methods for Cleaning Up: Use foam on spills to minimize vapors. Using only non-sparking tools and explosion proof equipment, collect spill on absorbent material and put into approved container. If spill happens in building, turn off all heating and/or air conditioning units.

SECTION VII - HANDLING AND STORAGE

Handling and Storage: • Vent container carefully before opening.
• "Empty" containers retain residue and/or vapor and may be dangerous. Do not cut, weld, braze solder, drill, grind or expose such containers to heat, flames, sparks, or other ignition sources.
• Keep containers tightly closed when not in use.
• Avoid prolonged breathing of mist or vapor. Wash thoroughly after handling.
• NFPA Class III B storage.
• Store out of direct sunlight and in a cool, well-ventilated area.
• Prevent water and/or moist air from entering the storage area.

SECTION VIII - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

EXPOSURE LIMITS:

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS #</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
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<tbody>
<tr>
<td>Tetrachloorethylene</td>
<td>127-18-4</td>
<td>25 ppm</td>
<td>25 ppm</td>
</tr>
</tbody>
</table>

Engineering Controls: Adequate local or mechanical to reduce vapor or mist to below the PEL or TLV.

Monitoring: Follow accepted work practices for handling a flammable material. Do not eat, drink or smoke in areas where this chemical is used or stored. Any clothing or shoes which became contaminated with the product should be removed immediately and thoroughly laundered before wearing again.

Personal Protective Equipment (PPE)

Eye Protection: Goggles or approved OSHA device with side shields; do not wear contact lenses when handling this product.

Skin Protection: Impervious solvent resistant gloves. Impervious apron and work boots recommend where splashing may occur.

Respiratory Protection: Use the proper respirator in areas where the chemical exposure is unknown or above the OSHA PEL or ACGIH TLV.
# Safety Data Sheet

## Perchloroethylene

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear, Colorless Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic Odor</td>
</tr>
<tr>
<td>pH@25°C</td>
<td>-</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>-</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>121.1°C (250°F)</td>
</tr>
<tr>
<td>Flashpoint</td>
<td>None, TCC;</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.62</td>
</tr>
<tr>
<td>Solubility</td>
<td>0.015Gr/100Gr@25°C</td>
</tr>
<tr>
<td>Auto-Ignition Temperature</td>
<td>-</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>-</td>
</tr>
<tr>
<td>VOC Content</td>
<td>0%</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>-</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>250°F</td>
</tr>
<tr>
<td>Evaporation Point</td>
<td>0.1 (Ether=1)</td>
</tr>
<tr>
<td>Flammable Limits - Upper</td>
<td>19% (vol.) @ 100°C</td>
</tr>
<tr>
<td>Flammable Limits - Lower</td>
<td>12%</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>13 mmHg @ 20°C</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>5.8 (Air=1)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>-</td>
</tr>
</tbody>
</table>

## SECTION X - STABILITY AND REACTIVITY

**Stability:** Stable

**Conditions to Avoid:** Sparks, fire, and extreme temperatures.

**Hazardous Decomposition/Byproducts:** Hydrogen chloride, phosgene, chlorine

**Hazardous Polymerization:** Will not occur.

**Polymerization Conditions to Avoid:** None
Safety Data Sheet  
Perchloroethylene  

SECTION XI - TOXICOLOGICAL INFORMATION

Likely Route of Exposure:  Contact and inhalation; ingestion possible.

Inhalation:  Low to moderate degree of toxicity by inhalation.  May cause respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness.

Eye Contact:  Causes eye irritation including stinging, watering and redness which may result in corneal injury.  High vapor concentrations are irritating to the eyes.

Skin Contact:  Contact may cause mild skin irritation including redness, burning and drying/cracking of the skin.  Can be painful if skin is confined in gloves, clothing, etc.  Repeated or prolonged contact with large amounts of this material may result in absorption through the skin to produce toxic effects.

Ingestion:  Aspiration hazard.  Can enter the lungs during swallowing or vomiting and cause chemical pneumonia and edema.  Moderate to high degree of toxicity by ingestion. May be harmful or fatal if swallowed.

Toxicity:

<table>
<thead>
<tr>
<th>Component Name</th>
<th>LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrachlorehylene</td>
<td>Oral - rat - 2,629 mg/kg; Dermal - rabbit - 5,000 mg/kg</td>
<td>Inhalation - rat - 8 h - 34,200 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reproductive Effects</th>
<th>Teratogenicity</th>
<th>Mutagenicity</th>
<th>Embryotoxicity</th>
<th>Sensitization to Product</th>
<th>Synergistic Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

SECTION XII - ECOLOGICAL INFORMATION

Ecotoxicity:  Information not available.

Mobility:  Information not available.

Degradability:  Information not available.

BioAccumulation:  Information not available.

SECTION XIII - WASTE DISPOSAL CONSIDERATIONS
Safety Data Sheet
Perchloroethylene

Follow local and national regulations. Consult disposal expert. Can be disposed of by controlled incineration. May be reacted with component "B" and disposed of as trash. Excessive quantities should not be permitted to enter drains, sewers, or water courses. Empty containers should be air dried before disposing.

SECTION XIV - TRANSPORT INFORMATION

DOT SHIPPING INFORMATION

Proper Shipping Name: Tetrachloroethylene
Contains:
Hazard Class and Label: 6
Identification Number: UN 1897
Packaging Group: III
Label Required:

SECTION XV - REGULATORY INFORMATION

TSCA STATUS: The components of this product are listed on the TSCA Inventory

SARA TITLE III SECTION 302/304 EXTREMELY HAZARDOUS SUBSTANCE:
No chemicals in this material are subject to the reporting requirements.

SARA TITLE III SECTION 311/312 HAZARD CATEGORIZATION:

<table>
<thead>
<tr>
<th></th>
<th>Acute</th>
<th>Chronic</th>
<th>Fire</th>
<th>Pressure</th>
<th>Reactive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SARA TITLE III SECTION 313 SUPPLIER INFORMATION:

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS #</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrachloroethylene</td>
<td>127-18-4</td>
<td>100</td>
</tr>
</tbody>
</table>

CERCLA SECTION 102(a) HAZARDOUS SUBSTANCE:

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS #</th>
<th>% by wt.</th>
<th>RQ (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrachloroethylene</td>
<td>127-18-4</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

SECTION XVI - OTHER INFORMATION

HMIS Health ............... 2
HMIS Flammability: ...... 0
HMIS Reactivity ........... 0

Additional: IMPORTANT: The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. MATRIX CHEMICAL, LLC MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY OR COMPLETENESS OF THE INFORMATION AND DATA HERETIN. Matrix Chemical will not be liable for claims relating to any party’s use of or reliance on information and data contained herein regardless of whether it is claimed
that the information and data are inaccurate, incomplete or otherwise misleading. This information relates to the material designated and may not be valid for such material used in combination with any other materials nor in any process.

Specification Information

Department issuing data sheet: Safety and Compliance
Email address: matrix@matrixchemical.com
Training necessary: Trained in accordance with state, federal and local laws.

Intended Use of Product:
All products should be used in accordance with state, federal and local laws.