

G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME -----> **Perchloroethylene All Grades**

PRODUCT NUMBER(S)-----> 220500, 220530

TRADE NAMES AND SYNONYMS--> Tetrachloroethylene

CAS-No: 127-18-4

CHEMICAL FAMILY: Chlorinated Hydrocarbon

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:

RECOMMENDED USE: Industrial: Use in dry cleaning, Professional use in film cleaning and copying, Surface cleaning, Heat transfer media, Distribution and repackaging, Manufacture of a substance.

USES ADVISED AGAINST: No information available.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: **G.J. CHEMICAL CO., INC.**

Address: **40 VERONICA AVENUE
SOMERSET, NJ 08873**

Telephone: **1-973-589-1450**

Fax: **1-973-589-3072**

1.4 Emergency Telephone Number

Emergency Phone: **1-800-424-9300 (CHEMTREC)**

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Skin sensitization (Category 1), H317

Carcinogenicity (Category 2), H351

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

Acute aquatic toxicity (Category 2), H401

Chronic aquatic toxicity (Category 2), H411

2.2 GHS Label elements, including precautionary statements



Pictogram

GHS08

GHS07

GHS09

H319 Signal word: **WARNING**

Hazard statement(s)

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H336 May cause drowsiness and dizziness.

H351 Suspected of causing cancer.

H401 Toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention:

P201 Obtain special instructions before use.

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

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray

P264 Wash skin thoroughly after handling.

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

P272 Contaminated work clothing should not be allowed out of the workplace

P273 Avoid release to the environment.

P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

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

3. INGREDIENTS

3.1 SUBSTANCE:

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Tetrachloroethylene	127-18-4 EC-No.204-825-9 Index-No.602-028-00-4 Reg.-No. 01-2119475329-28-XXXX	99- 100	Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319 Skin sensitization (Category 1), H317 Carcinogenicity (Category 2), H351 STOT-SE (Category 3), Central Nervous System, H336 Acute aquatic toxicity (Category 2), H401 Chronic aquatic toxicity (Category 2), H411

3.2 MIXTURE: Not applicable.

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

INHALATION: PERCHLOROETHYLENE

****FIRST AID- Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.**

SKIN CONTACT: PERCHLOROETHYLENE

****FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention if irritation persists.**

EYE CONTACT: PERCHLOROETHYLENE

****FIRST AID- Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until**

no evidence of chemical remains (approximately 15-20 minutes).
Remove contact lenses, if worn, after initial flush. Get medical
attention immediately.

INGESTION: PERCHLOROETHYLENE

****FIRST AID- Do not induce vomiting. Do not give fluids. Prevent aspiration by keeping the victims head below the knees. Never give anything by mouth to an unconscious person. Immediately get to a physician or poison control center, treat symptomatically. Gastric lavage may be effective when performed by a physician within 4 hours of ingestion.**

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Eye: Severe irritation, possible eye burns causing pain, inflammation and temporal eye damage;

Skin: May cause severe irritation and possible burns; May be harmful if absorbed through skin

Inhalation: Irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma. Irritation of respiratory tract. Causes formation of carbon monoxide in blood which affects cardiovascular system and the central nervous system.

Ingestion: May cause Irritation of gastrointestinal tract. If vomiting results in aspiration, chemical pneumonia could follow. Absorption through gastrointestinal tract may produce kidney and liver damage and symptoms of central nervous system depression.

Chronic: Possible cancer hazard based on tests with laboratory animals. Prolonged or repeated skin contact may cause de-fatting and dermatitis. May cause respiratory tract cancer. May cause adverse nervous system effects including muscle tremors and in-coordination. May cause liver and kidney damage. May cause reproductive and fetal effects.

Medical Conditions Aggravated by Exposure: Persons with angina or other cardiovascular diseases should not be exposed to this product.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Specific details on antidote: No recommendation given.

5. FIRE FIGHTING MEASURES

Flash Point: None°F TCC
Auto-ignition Temp: NA

LEL %: None
UEL %: None

5.1 SUITABLE EXTINGUISHING MEDIA: Foam--> x CO2--> x Dry Chemical-->
x Water-fog--> x Other-->

Unsuitable extinguishing media: Do not use waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR

MIXTURE: At high temperatures this product decomposes to give off hydrogen chloride gas plus other toxic and irritating vapors such as phosgene, chlorine. Vapor may form flammable mixture in atmosphere that contains a high percentage of oxygen. This product is nonflammable and non-explosive under normal conditions. At high temperatures this product decomposes to give off hydrochloric acid as gas plus other toxic and irritating vapors such as phosgene. If storage containers are exposed to excessive heat, over pressurization of the containers can result. If storage containers are exposed to excessive heat, over pressurization of the containers can result. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

CONDITIONS OF FLAMMABILITY: Not flammable or combustible.

HAZARDOUS COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides, hydrogen chloride, chlorine and phosgene evolve when this material undergoes combustion.

5.3 ADVICE FOR FIREFIGHTERS: Shut off source. Water fog may be used to cool closed containers to prevent pressure build. Wear NIOSH/MSHA approved pressure demand self-contained breathing apparatus (SCBA) for buildings and confined spaces where this product is stored. Structural firefighters clothing provides limited protection to the combustion products of this material

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Immediately evacuate all nonessential people. Avoid breathing vapors in top of shipping container. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

6.2 ENVIRONMENTAL PRECAUTIONS:

Keep out of water sources, drains and sewers. Do not flush into surface water or sanitary sewer system.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Methods for cleanup and containment:

Shut off valves, contain spill, keep out of water sources and sewers. For small spills add absorbent (sand, diatomaceous earth) in spill area and then placed in closed containers, labeled and stored outside to await disposal. Large spills should be removed with a vacuum truck. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations. Keep all nonessential people away. Clean up personnel should have NIOSH/MSHA approved positive pressure self-contained breathing apparatus (SCBA).

Methods for disposal:

Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

REPORTABLE QUANTITY (RQ): 100 POUNDS

The Superfund Amendments and Reauthorization Act (SARA) Section 304 requires that a release equal to or greater than the reportable quantity for this substance be immediately reported to the local emergency planning committee and the state emergency response commission (40 CFR 355.40). If the release of this substance is reportable under CERCLA Section 103, the national response center must be notified immediately at (800) 424-8882 or (202) 426-2675 in the metropolitan Washington, D. C. area (40 CFR 302.6).

6.4 REFERENCE TO OTHER SECTIONS: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not take internally. Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

Advice on general occupational hygiene:

Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs. When using do not smoke.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities.

Recommended storage temperature: 15 - 25°C. High Vapor Pressure presents a hazard when opening packages. Store large quantities only in cool, dry areas in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not contact with oxidizing materials. Keep containers closed when not in use.

CONTAINER WARNINGS: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner.

7.3 SPECIFIC END USES: Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

8.1 CONTROL PARAMETERS:

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Tetrachloroethylene	127-18-4 EC-No.204-825-9 Index-No.602-028-00-4 Reg.-No. 01-2119475329-28-XXXX	99-100	25ppm TWA (ACGIH) 100ppm STEL (ACGIH) 100ppm TWA (OSHA) 200ppm Ceiling (OSHA) 300ppm Peak (OSHA)

Key: (PEL) = Permissible Exposure Limit OSHA
 (TLV) = Threshold Limit Value OSHA & ACGIH
 (STEL) = Short Term Exposure Limit ACGIH
 (WEEL) = USA. Workplace Environmental Exposure Levels
 (TWA) = Time Weighted Average
 CAS = Chemical Abstracts Registry Number
 IDLH = Immediate Danger to Life and Health
 N.D. =None Established

8.2 EXPOSURE CONTROLS

EXPOSURE GUIDELINES: Consider the potential hazards of this material (Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective

equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

RESPIRATORY PROTECTION: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA):

For vapor concentrations 1 to 10 times ACGIH TWA use an air purifying NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times ACGIH TWA, in confined areas, and/or where vapor concentrations are unknown use an NIOSH/MSHA approved positive pressure full face-piece supplied air respirator (SCBA).

BODY CLOTHING: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove, wash and dry contaminated clothing before reuse.

SKIN PROTECTION: Employee must wear appropriate protective gloves to prevent contact with this substance.

Full contact

Material: Fluorinated rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.2 mm

Break through time: 49 min

HYGIENE: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

EYE/FACE PROTECTION: Use chemical safety goggles plus full face shield. Emergency shower and eyewash should be in close proximity.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Perchloroethylene 127-18-4

APPEARANCE:	Clear mobile liquid
COLOR:	Colorless
ODOR:	Sweetish odor
ODOR THRESHOLD:	No data available
pH:	No data available
MOLECULAR WEIGHT:	165.83 amu
MELTING POINT:	-22°C (-8°F)
BOILING POINT:	121°C (250°F)
SPECIFIC GRAVITY:	1.623@25°C (77°F)
DENSITY (25°C):	1.623@25°C (77°F)
VAPOR PRESSURE:	13mm Hg @ 20°C (68°F) 19mm Hg @ 25°C (77°F)
VAPOR DENSITY:	5.2
WATER SOLUBILITY:	0.15 g/L 25°C (77°F)
PARTITION COEFFICIENT N-OCTANOL/WATER	log Pow: 2.53 23°C (73°F)
FLASH POINT:	None
EVAPORATION RATE (BUTYL ACETATE=1):	2.1
UPPER FLAMMABILITY LIMIT:	No data available
LOWER FLAMMABILITY LIMIT:	No data available
AUTO IGNITION TEMPERATURE:	No data available
DECOMPOSITION TEMPERATURE:	No data available
VISCOSITY:	No data available
EXPLOSIVE PROPERTIES:	No data available
OXIDIZING PROPERTIES:	No data available

9.2 OTHER INFORMATION:

Surface tension: 32.1 mN/m at 20°C (68°F)

10. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: No data available.

10.2 CHEMICAL STABILITY: Unstable () Stable (X)

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: No data available

HAZARDOUS POLYMERIZATION: May occur () Will not occur (X)

10.4 CONDITIONS TO AVOID: Heat, Sparks, Pilot Lights, Static Electricity, and other high temperature sources which induce thermal decomposition to

irritating and corrosive HCL from solvent vapor. String UV light can cause significant phosgene to be generated.

10.5 INCOMPATIBLE MATERIALS: Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid, hydrogen peroxide, dinitrogen tetroxide, alkali metals, aluminum or zinc.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Toxic fumes of Phosgene, Hydrochloric Acid can be produced at high temperatures in the presence of alkali metals.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x Eye--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Severe irritation, possible eye burns causing pain, inflammation and temporal eye damage;

Skin> May cause severe irritation and possible burns; May be harmful if absorbed through skin

Inhalation> Irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma. Irritation of respiratory tract. Causes formation of carbon monoxide in blood which affects cardiovascular system and the central nervous system.

Ingestion> May cause Irritation of gastrointestinal tract. If vomiting results in aspiration, chemical pneumonia could follow. Absorption through gastrointestinal tract may produce kidney and liver damage and symptoms of central nervous system depression.

Chronic: Possible cancer hazard based on tests with laboratory animals. Prolonged or repeated skin contact may cause de-fatting and dermatitis. May cause respiratory tract cancer. May cause adverse nervous system effects including muscle tremors and in-coordination. May cause liver and kidney damage. May cause reproductive and fetal effects.

Medical Conditions Aggravated by Exposure> Persons with angina or other cardiovascular diseases should not be exposed to this product.

ACUTE TOXICITY:

The effects of overexposure shown in Section II are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50 (Rat)	Skin LD50(Rabbit)	Inhalation LC50	
Tetrachloroethylene	3385mg/kg OECD Test 401)	5000mg/kg	5040ppm/8hr 34200mg/L/8hr	

SKIN CORROSION/IRRITATION: Skin - Rabbit Result: Skin irritation - 4 h (OECD Test Guideline 404)

SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Mild eye irritation - 24 h

RESPIRATORY OR SKIN SENSITIZATION: Mouse Result: May cause sensitization by skin contact. (OECD Test Guideline 429)

MUTAGENIC EFFECTS: No mutagenic effects were seen in rat liver after exposure at 200ppm for 10 weeks.
Hamster ovary Result: negative (OECD Test Guideline 474)
Mouse - male Result: negative

CARCINOGEN STATUS: Limited evidence of carcinogenicity in animal studies: IARC: 2A - Group 2A: Probably carcinogenic to humans (Tetrachloroethylene) NTP: RAHC - Reasonably anticipated to be a human carcinogen (Tetrachloroethylene). "Reasonably anticipated to be carcinogens" defines carcinogens for which there is limited evidence of carcinogenicity in humans and/or sufficient evidence of carcinogenicity in experimental animals.
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.

NCI (DHEW-NIH Pub. 77-813) stated that laboratory animals exposed to Perchloroethylene at 80 to 150ppm developed liver cancer in one study with no evidence of liver cancer in another study.

REPRODUCTIVE TOXICITY: Has caused behavioral biochemical, and metabolic effects on newborn rats where the mother was exposed to 900ppm/7hours at 7-13 days after conception.

Specific target organ toxicity (STOT-SE) - single exposure (Globally Harmonized System): May cause drowsiness or dizziness.

Specific target organ toxicity (STOT-RE) - repeated exposure (Globally Harmonized System): no data available

ASPIRATION HAZARD: No information available.

ADDITIONAL DATA: Repeated dose toxicity: narcosis, Liver injury may occur, Kidney injury may occur.

RTECS: KX3850000

12. ECOLOGICAL INFORMATION

DANGEROUS TO AQUATIC LIFE IN HIGH CONCENTRATIONS:

May be dangerous if it enters water intakes.

Notify local health and pollution control officials.

Notify operators of nearby water intakes.

12.1 AQUATIC TOXICITY:

Toxicity to fish:

LC50 - Oncorhynchus mykiss (rainbow trout) - 4.9 mg/l - 96.0 h flow through test

Toxicity to daphnia and other aquatic invertebrates:

EC50 - Daphnia magna (Water flea) - 7.50 mg/l - 48 h

Toxicity to algae:

EC50 - Skeletonema costatum - > 16 mg/l - 7 h static test

12.2 PERSISTANCE AND DEGRADABILITY: aerobic - Exposure time 28 d Result: 11 % - Not readily biodegradable. (OECD Test Guideline 301C)

12.3 BIOACCUMULATIVE POTENTIAL: Lepomis macrochirus (Bluegill) - 21 d - 0.00343 mg/l

octanol/water partition coefficient: log Pow 2.53

Bio-concentration Factor (BCF): 49

12.4 MOBILITY IN SOIL: No data available

12.5 RESULTS OF PBT AND vPvB:

PBT assessment results: This substance is not classified as PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS: Toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Recovery and reuse of spilled product, rather than disposal, should be the ultimate goal of a clean up. When necessary dispose of in accordance with all applicable federal, state and local disposal regulations.

CONTAMINATED PACKAGING: Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or

alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

RCRA: The unused product is a RCRA hazardous waste if discarded. The RCRA ID numbers are: U210 AND D039

If the waste is a spent solvent, the appropriate spent solvent code should be used.

DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 48 CFR 262

14. TRANSPORT INFORMATION

Land Transport (DOT)

- 14.1 USDOT ID Number-----> UN1897
- 14.2 USDOT Shipping Name-----> Tetrachloroethylene
- 14.3 USDOT Hazard Classification-----> 6.1 (Toxic)
 USDOT Label Codes-----> 6.1
- 14.4 USDOT Package Code-----> III
- 14.5 Marine Pollutant-----> No
- 14.6 Special precautions for user-----> Yes
 Emergency Response Guide-----> 160
 Reportable quantity-----> 100lbs.

Sea Transport (IMDG)

- 14.1 ID Number-----> UN1897
- 14.2 Proper shipping name-----> TETRACHLOROETHYLENE
- 14.3 Hazard Classification-----> 6.1 (Toxic)
 Label Codes-----> 6.1
- 14.4 Package Code-----> III
- 14.5 Marine Pollutant-----> Yes
- 14.6 Special precautions for user-----> No
 EMS-Number-----> F-A, S-A

Air Transport (IATA)

- 14.1 ID Number-----> UN1897
- 14.2 Proper shipping name-----> Tetrachloroethylene
- 14.3 Hazard Classification-----> 6.1 (Toxic)
 Label Codes-----> 6.1
- 14.4 Package Code-----> III
- 14.5 Environmental hazard-----> None
- 14.6 Special precautions for user-----> No

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Listed

Tetrachloroethylene CAS127-18-4

SECTION 311/312: Hazard Categorization (40 CFR 370) - Acute Health Hazard, Chronic Health Hazard.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Listed

Tetrachloroethylene CAS127-18-4 Reportable Quantity – 100lbs.

SECTION 101(14) Reportable Quantity: 100lbs.

Massachusetts Right to Know Components

Tetrachloroethylene CAS-No.127-18-4

Pennsylvania Right to Know Components

Tetrachloroethylene CAS-No.127-18-4

New Jersey Right to Know Components

Tetrachloroethylene CAS-No.127-18-4

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

Tetrachloroethylene CAS-No.127-18-4

TSCA (Toxic Substance Control Act)

Tetrachloroethylene CAS-No.127-18-4 is listed on the TSCA Inventory.

International Inventories:

<u>Country or Region</u>	<u>Inventory Name</u>	<u>On inventory yes/no</u>
<u>Australia</u>	Australian Inventory of Chemical Substances (AICS)	Yes
<u>Canada</u>	Domestic Substances List (DSL)	Yes
<u>Canada</u>	Non-Domestic Substances List (NDSL)	No
<u>China</u>	Inventory of Existing Chemical Substances in China (IECSC)	Yes
<u>Europe</u>	European Inventory of Existing Commercial Chemicals Substances (EINECS)	Yes

<u>Europe</u>	European List of Notified Chemical Substances (ELINCS)	No
<u>Japan</u>	Inventory of Existing and New Chemical Substances (ENCS)	Yes
<u>Japan</u>	Industrial Safety & Health Law Inventory (ISHL)	Yes
<u>Korea</u>	Existing Chemicals List (ECL)	Yes
<u>Mexico</u>	National Inventory of Chemical Substances (INSQ)	Yes
<u>New Zealand</u>	New Zealand Inventory	Yes
<u>Philippines</u>	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
<u>Switzerland</u>	Inventory of Notified New Substances (CHINV)	Yes
<u>Taiwan</u>	National Existing Chemical Inventory (NECI)	Yes
<u>United States & Puerto Rico</u>	Toxic Substances Control Act Inventory	Yes

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has been carried out for this substance.

16. OTHER INFORMATION:

Hazard Rating:

4-Extreme

3-High

2-Moderate

1-Slight

0-Insignificant

NFPA RATINGS (SCALE 0-4): Health=2 Fire=0 Reactivity=0
HMIS RATINGS (SCALE 0-4): Health=3 Fire=0 Reactivity=0 PPE=H

Hazard statement(s) from Section 2 and 3:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H336 May cause drowsiness and dizziness.

H351 Suspected of causing cancer.

H401 Toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Date of preparation-----> December 15, 2006

Revision Number-----> 1.4

Revision Content-----> General update all sections

Revision-----> October 26, 2018

Prepared by-----> T.G. Fenstermaker Jr.

Acronyms:

ACGIH - American Conference of Governmental Industrial Hygienists
 AIHA - American Industrial Hygiene Association
 ANSI - American Nation Standards Institute
 API - American Petroleum Institute
 CERCLA - Comprehensive Emergency Response, Compensation, and Liability Act
 DOT - U.S. Department of Transportation
 EPA - U.S. Environmental Protection Agency

HMIS	-	Hazardous Materials Information System
IARC	-	International Agency For Research On Cancer
MSHA	-	Mine Safety and Health Administration
NFPA	-	National Fire Protection Association
NIOSH	-	National Institute of Occupational Safety and Health
NOIC	-	Notice of Intended Change (Proposed change to ACGIH TLV)
NTP	-	National Toxicology Program
OPA	-	Oil Pollution Act of 1990
OSHA	-	U.S. Occupational Safety & Health Administration
PEL	-	Permissible Exposure Limit (OSHA)
RCRA	-	Resource Conservation and Recovery Act
REL	-	Recommended Exposure Limit (NIOSH)
SARA	-	Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA	-	Self-Contained Breathing Apparatus
STEL	-	Short-Term Exposure Limit (generally 15 minutes)
TLV	-	Threshold Limit Value
TSCA	-	Toxic Substances Control Act
TWA	-	Time Weighted Average (8hr.)
WHMIS	-	Canadian Workplace Hazardous Materials Information System

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