# **SAFETY DATA SHEET**

# SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: Product Name:	499605 Solv It All		
Revision Date: Version:	Apr 21, 2025 2.4	Date Printed: Supersedes Date:	Apr 21, 2025 Mar 21, 2025
Manufacturer's Name:	Zenex International		
Address:	1 Zenex Circle Cleveland, OH, US, 44146		

**Emergency Phone:** 1-800-535-5053

Information Phone Number: (440)-232-4155

#### Product/Recommended Uses: Energized Electrical Cleaner [Industrial & Commercial use only]

After June 16, 2025, this chemical/product is and can only be domestically manufactured, imported, processed, or distributed in commerce for the following purposes until the following prohibitions take effect: (1) Processing as an intermediate a) for the manufacture of HFC-134a until June 18, 2033, and b) for all other processing as a reactant/intermediate until December 18, 2026; (2) Industrial and commercial use as a solvent for open-top batch vapor degreasing until December 18, 2025, (3) Industrial and commercial use as a solvent for closed-loop batch vapor degreasing necessary for rocket engine cleaning by Federal agencies and their contractors until December 18, 2023, and b) For all other processing and their contractors until December 18, 2029, and except for industrial and commercial use as a solvent for closed-loop batch vapor degreasing processary for rocket engine cleaning by Federal agencies and their contractors until December 18, 2031, and except for industrial and commercial use as a solvent for closed-loop batch vapor degreasing for rayon fabric scouring for end use in rocket booster nozzle production by Federal agencies and their contractors until December 18, 2031, and except for industrial and commercial use as a solvent for closed-loop batch vapor degreasing for rayon fabric scouring for end use in rocket booster nozzle production by Federal agencies and their contractors until December 18, 2034; (4) Industrial and commercial use in processing aid (a) for lithium battery separator manufacturing until December 18, 2032, and (b) for lead-acid battery separator manufacture until December 18, 2034; (4) Industrial and (c) for specialty polymeric microprosus sheet material manufacturing until December 18, 2039, and (b) in process solvent used in bettery manufacture; and in precipitant used in bettery manufacture; until December 18, 2034; (5) Industrial and commercial uses for vessels of the Armee Forces and their systems, and in the maintenance, fabrication, and sustainment for and of such vessels

\*\*751.305(b)(10) - After December 18, 2027, all persons are prohibited from industrial and commercial use of TCE in energized electrical cleaners and from the manufacturing (including importing), processing, and distribution in commerce of TCE for such a use.

# **SECTION 2) HAZARDS IDENTIFICATION**

## Classification

Gases Under Pressure - Compressed Gas

Carcinogenicity - Category 1B

Germ Cell Mutagenicity - Category 2

Eye Irritation - Category 2

Skin Irritation - Category 2

Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) - Category 3

## **Pictograms**



## Signal Word

Danger

## **Hazardous Statements - Physical**

H280 - Contains gas under pressure; may explode if heated.

## Hazardous Statements - Health

- H350 May cause cancer.
- H341 Suspected of causing genetic defects.
- H319 Causes serious eye irritation.
- H315 Causes skin irritation.

H336 - May cause drowsiness or dizziness.

## **Precautionary Statements - General**

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

#### **Precautionary Statements - Prevention**

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P280 Wear protective gloves, protective clothing, eye protection and face protection.
- P264 Wash hands thoroughly after handling.
- P261 Avoid breathing mist, vapors or spray.
- P271 Use only outdoors or in a well-ventilated area.

#### **Precautionary Statements - Response**

- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 Call a POISON CENTER or doctor if you feel unwell.
- P308 + P313 IF exposed or concerned: Get medical attention.

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

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

- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P362 + P364 Take off contaminated clothing and wash it before reuse.

P332 + P313 - If skin irritation occurs: Get medical attention.

#### **Precautionary Statements - Storage**

P405 - Store locked up.

P410 + P403 - Protect from sunlight. Store in a well-ventilated place.

#### **Precautionary Statements - Disposal**

P501 - Dispose of contents and container in accordance with local, regional, national and international regulations.

## SECTION 3) COMPOSITION, INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
79-01-6	Trichloroethylene	68% - 100%
124-38-9	Carbon Dioxide	1% - 3%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

## SECTION 4) FIRST-AID MEASURES

#### Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If exposed/feel unwell/concerned: Call a POISON CENTER or doctor. Eliminate all ignition sources if safe to do so.

## **Eye Contact**

Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

#### **Skin Contact**

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

IF exposed or concerned:Get medical advice/attention.

#### Ingestion

Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

## Most Important Symptoms/Effects, Acute and Delayed

No data available.

No data available.

## **SECTION 5) FIRE-FIGHTING MEASURES**

#### **Suitable Extinguishing Media**

Dry chemical, foam, carbon dioxide. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

Do not direct a solid stream of water or foam into hot, burning pools this may results in frothing and increase fire intensity.

#### **Unsuitable Extinguishing Media**

No data available.

#### **Specific Hazards in Case of Fire**

Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Product is highly flammable and forms explosive mixtures with air, oxygen, and all oxidizing agents. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back.

During a fire, irritating and highly toxic gases may be generated during combustion or decomposition. High temperatures can cause sealed containers to rupture due to a build up of internal pressures. Cool with water.

Empty Containers retain product residue which may exhibit hazards of material; therefore do not pressurize, cut, glaze, weld or use for any other purposes.

Container could potentially burst or be punctured upon mechanical impact, releasing flammable vapors.

#### Fire-Fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

#### **Special Protective Actions**

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## **SECTION 6) ACCIDENTAL RELEASE MEASURES**

#### **Emergency Procedure**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not touch or walk through spilled material.

Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

#### **Recommended Equipment**

Wear liquid tight chemical protective clothing in combination with positive pressure self-contained breathing apparatus (SCBA).

#### Personal Precautions

Avoid breathing vapor. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

#### **Environmental Precautions**

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

#### Methods and Materials for Containment and Cleaning up

Absorb liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal.

## SECTION 7) HANDLING AND STORAGE

#### General

Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas.

Eyewash stations and showers should be available in areas where this material is used and stored.

#### **Ventilation Requirements**

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

## Storage Room Requirements

Do not cut, drill, grind, weld, or perform similar operations on or near containers. Do not pressurize containers to empty them.

Store at temperatures below 120°F.

# **SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION**

## Eye Protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

#### **Skin Protection**

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over- boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

#### **Respiratory Protection**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.

## **Appropriate Engineering Controls**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA TWA (mg/m3)	OSHA TWA (ppm)	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA Carcinogen	OSHA Skin designation	OSHA Tables (Z1, Z2, Z3)	ACGIH TWA (mg/m3)
Carbon Dioxide	9000	5000					1	
Trichloro- ethylene		100 (a) / 200 ceiling		300 / 5 mins. in any 2 hrs.(a)			1,2	
Chemical Name	ACGIH TWA (ppm)	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations	NIOSH TWA (mg/m3)	NIOSH TWA (ppm)
Carbon Dioxide	5000		30000		Asphyxia		9000	5000
Trichloro- ethylene	10		25	A2	CNS impair; cognitive decrements; renal toxicity	A2; BEI		25b

Chemical Name	NIOSH STEL (mg/m3)	NIOSH STEL (ppm)	NIOSH Carcinogen
Carbon Dioxide	54000	30000	
Trichloro- ethylene			1

(C) - Ceiling limit, A2 - Suspected Human Carcinogen, BEI - Substances for which there is a Biological Exposure Index or Indices, CNS - Central nervous system, impair - Impairment

## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

## **Physical and Chemical Properties**

12.20 lb/gal
11.93 lb/gal
97.75%

Appearance	Clear Liquid
11	•
Odor Threshold	N.A.
Odor Description	N.A.
рН	N.A.
Water Solubility	N.A.
Flammability	Will not burn
Flash Point Symbol	N.A.
Flash Point	N.A.
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Density	N.A.
Melting Point	N.A.
Freezing Point	N.A.
Low Boiling Point	N.A.
High Boiling Point	N.A.
Decomposition Pt	N.A.
Auto Ignition Temp	N.A.
Evaporation Rate	Slower than ether

# **SECTION 10) STABILITY AND REACTIVITY**

## Stability

Stable under normal storage and handling conditions.

## **Conditions to Avoid**

Avoid heat, sparks, flame, high temperature and contact with incompatible materials. Dropping containers may cause bursting.

## **Incompatible Materials**

Avoid strong oxidizers, reducers, acids, and alkalis.

**Hazardous Reactions/Polymerization** 

Will not occur.

**Hazardous Decomposition Products** 

No data available.

**SECTION 11) TOXICOLOGICAL INFORMATION** 

## **Skin Corrosion/Irritation**

Causes skin irritation.

## **Serious Eye Damage/Irritation**

Causes serious eye irritation.

## Carcinogenicity

May cause cancer.

79-01-6 Trichloroethylene This substance is carcinogenic to humans.

## **Germ Cell Mutagenicity**

Suspected of causing genetic defects.

## **Reproductive Toxicity**

79-01-6 Trichloroethylene Causes toxicity to human reproduction or development. Possible teratogen in humans.

## **Respiratory/Skin Sensitization**

No data available.

## Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness

#### 79-01-6 Trichloroethylene

The substance is irritating to the respiratory tract. The substance may cause effects on the central nervous system, liver and kidneys. This may result in impaired functions. Exposure can cause headache, dizziness, lightheadedness, and passing out. High exposure could cause irregular heart beat which can be fatal. Exposure at high concentrations could cause unconsciousness.

## Specific Target Organ Toxicity - Repeated Exposure

#### 79-01-6 Trichloroethylene

Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the central nervous system. This may result in fatigue, irritability and mental and memory disturbances. The substance may have effects on the liver, kidneys and immune system. Chronic exposure may cause organic injury. May cause personality changes such as depression, anxiety or irritability.

#### **Aspiration Hazard**

No data available.

#### **Acute Toxicity**

#### 79-01-6 Trichloroethylene

If swallowed the substance may cause vomiting and could result in aspiration pneumonitis. INHALATION: symptoms range from irritation of the nose and throat to nausea, an attitude of irresponsibility, blurred vision, and finally disturbance of central nervous system resulting in cardiac failure. INGESTION: symptoms similar to inhalation.

#### 79-01-6 Trichloroethylene

LC50 (rat): Approximately 8000 ppm (4-hour exposure) (5); 12500 ppm (4-hour exposure) (20) LC50 (mouse): 8450 ppm (4-hour exposure) (3) LD50 (oral, rat): 7200 mg/kg (cited as 4.92 mL/kg) (5) LD50 (oral, male mouse): 2402 mg/kg (4) LD50 (dermal, rabbit): Greater than 29000 mg/kg (cited as greater than 20 mL/kg (5)

#### Likely Routes of Exposure

#### 79-01-6 Trichloroethylene

The substance can be absorbed into the body by inhalation, by ingestion and through the skin.

# **SECTION 12) ECOLOGICAL INFORMATION**

#### **Toxicity**

Harmful to aquatic life with long lasting effects

## Persistence and Degradability

No data available.

#### **Bio-Accumulative Potential**

No data available.

## **Mobility in Soil**

No data available.

## **Other Adverse Effects**

No data available.

## SECTION 13) DISPOSAL CONSIDERATIONS

## Waste Disposal

Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws. Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

# **SECTION 14) TRANSPORT INFORMATION**

	IATA Information	IMDG Information	U.S. DOT Information
UN number:	UN1950	UN1950	UN1950

Proper shipping name:	Aerosols, non- flammable	Aerosols	Aerosols
Hazard class:	2.2	2.2	2.2
Packaging group:	N.A.	N.A.	N.A.
Note:	(LTD QTY)	(LTD QTY)	(LTD QTY)

# **SECTION 15) REGULATORY INFORMATION**

CAS	Chemical Name	% By Weight	Regulation List
79-01-6	Trichloroethylene	68% - 100%	SARA313, HAPS, SARA312, VHAPS VOC, TSCA, RCRA, ACGIH, California Proposition 65 - Cancer & Developmental & Toxicity Male, OSHA
124-38-9	Carbon Dioxide	1% - 3%	SARA312, TSCA, ACGIH, OSHA

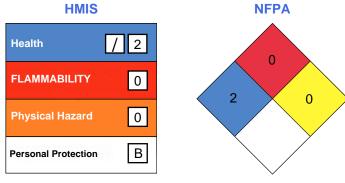
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**SECTION 16) OTHER INFORMATION** 

#### Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG-Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)-HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL-Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.



## (\*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

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