

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: 499505
Product Name: ZenaSolv
Revision Date: Feb 09, 2023 **Date Printed:** Feb 09, 2023
Version: 3.0 **Supersedes Date:** Apr 07, 2022
Manufacturer's Name: Zenex International
Address: 1 Zenex Circle Cleveland, OH, US, 44146
Emergency Phone: 1-800-535-5053
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Product/Recommended Uses: Energized Electrical Cleaner

SECTION 2) HAZARDS IDENTIFICATION

Classification

Gases Under Pressure - Dissolved Gas
Carcinogenicity - Category 2
Eye Irritation - Category 2
Skin Irritation - Category 2
Skin Sensitizer - Category 1B
Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) - Category 3

Pictograms



Signal Word

Warning

Hazardous Statements - Physical

H280 - Contains gas under pressure; may explode if heated

Hazardous Statements - Health

H351 - Suspected of causing cancer.
H319 - Causes serious eye irritation
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
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 and face protection.
- P264 - Wash hands thoroughly after handling.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P261 - Avoid breathing mist, vapors and spray.
- P271 - Use only outdoors or in a well-ventilated area.

Precautionary Statements - Response

- 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.
- P333 + P313 - If skin irritation or a rash occurs: Get medical attention.
- 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.

Precautionary Statements - Storage

- P410 + P403 - Protect from sunlight. Store in a well-ventilated place.
- P405 - Store locked up.

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
127-18-4	Tetrachloroethylene	90% - 99%
124-38-9	Carbon Dioxide	1% - 5%

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 breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor. If breathing has stopped, trained personnel should begin rescue breathing or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). If you feel unwell/If concerned: Get medical advice/attention.

Eye Contact

Rinse eyes cautiously with lukewarm, gently flowing water for 15 minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. 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

Wipe off with a towel. Wash with soap and water. Get medical attention if irritation persists.

Ingestion

Ingestion is not a likely route of exposure. Get medical attention if you feel unwell.

Most Important Symptoms/Effects, Acute and Delayed

No data available.

Indication of Immediate Medical Attention and Special Treatment Needed

No data available.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam, alcohol foam, carbon dioxide, dry chemical, water fog.

Unsuitable Extinguishing Media

Water may be ineffective but can be used to cool containers exposed to heat or flame.

Specific Hazards in Case of Fire

Closed containers may explode from internal pressure build-up when exposed to extreme heat and discharge contents. Liquid content of container will not support combustion. Overexposure to decomposition products may cause a health hazard. Symptoms may not be readily apparent. Obtain medical attention. Hazardous decomposition products include carbon dioxide, carbon monoxide, and other toxic fumes.

Fire-fighting Procedures

Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat.

Special Protective Actions

Wear goggles and use a self-contained breathing apparatus. If water is used, fog nozzles are preferred.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Ventilate area. Remove all sources of ignition.

Recommended Equipment

See section 8 for specifics on protective personal equipment (PPE).

Personal Precautions

Avoid breathing vapors. Ventilate area. Wear safety glasses and gloves.

Environmental Precautions

Stop spill/release if it can be done safely.

Methods and Materials for Containment and Cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

SECTION 7) HANDLING AND STORAGE

General

Do not puncture or incinerate (burn) cans. Do not stick pins, nails, or any other sharp objects into opening on top of can. Do not spray in eyes. Do not take internally.

Ventilation Requirements

Use in a well-ventilated place.

Storage Room Requirements

Store and use in a cool, dry, well-ventilated area. Do not store above 120°F. See product label for additional information.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear safety glasses with side shields. Eyewash stations and showers should be available in areas where this material is used and stored.

Skin Protection

Use solvent-resistant protective gloves for prolonged or repeated contact.

Respiratory protection

In restricted areas, use approved chemical/mechanical filters designed to remove a combination of particles and vapor. In confined areas, use an approved air line respirator or hood. A self-contained breathing apparatus is required for vapor concentrations above PEL/TLV limits.

Appropriate Engineering Controls

Ventilation should be sufficient to prevent inhalation of any vapors.

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	
Tetrachloro-ethylene		100 (a)/ 200 ceiling		300ppm /5 mins. in any 3 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
Tetrachloro-ethylene	25		100	A3	CNS impair	A3; BEI		b

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

(C) - Ceiling limit, A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans, 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

Density	13.43 lb/gal
Density VOC	0 lb/gal
% VOC	0%
<hr/>	
Appearance	Aerosol Spray
Odor Threshold	N.A.
Odor Description	Ether Like
pH	N.A.
Water Solubility	150 g/mL
Flammability	Flash point below 73°F/23°C
Flash Point Symbol	N.A.
Flash Point	>93°C
Viscosity	0.524 cSt
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Melting Point	N.A.
Vapor Density	N.A.
Freezing Point	N.A.
Low Boiling Point	121.24 °C
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

The product is stable under normal storage conditions.

Conditions To Avoid

High temperatures.

Incompatible Materials

None known.

Hazardous Reactions/Polymerization

None known.

Hazardous Decomposition Products

Hazardous decomposition products may include carbon dioxide, carbon monoxide, and other toxic fumes.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation

Causes skin irritation

Serious Eye Damage/Irritation

Causes serious eye irritation

Carcinogenicity

Suspected of causing cancer.

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

May cause an allergic skin reaction

Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness

Specific Target Organ Toxicity - Repeated Exposure

Based on available data, the classification criteria are not met.

Aspiration Hazard

Based on available data, the classification criteria are not met.

Acute Toxicity

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

127-18-4 TETRACHLOROETHYLENE

LC50 (rat): Approximately 3786 ppm (4-hour exposure) (22); approximately 4000 ppm (4-hour exposure) (23)

LC50 (mouse): 5200 ppm (4-hour exposure) (24)

LD50 (oral, rat): Approximately 2600 mg/kg (cited as 1.6 mL/kg) (20)

LD50 (oral, male rat): 3835 mg/kg (25)

LD50 (oral, female rat): 3005 mg/kg (25)

LD50 (dermal, rabbit): Greater than 3245 mg/kg (0/5 animals died) (2)

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

Based on available data, the classification criteria are not met.

Persistence and Degradability

No data available.

Bioaccumulative 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

	U.S. DOT Information	IMDG Information	IATA Information
UN number:	UN1950	UN1950	UN1950
Proper shipping name:	Aerosols	Aerosols	Aerosols, non-flammable,
Hazard class:	2.2	2.2	2.2
Packaging group:	N.A.	N.A.	N.A.
Hazardous substance (RQ):	No Data Available		
Marine Pollutant:	No Data Available	No Data Available	
Note / Special Provision:	No Data Available	No Data Available	No Data Available
Toxic-Inhalation Hazard:	No Data Available		

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
127-18-4	Tetrachloroethylene	90% - 99%	SARA313, CERCLA, HAPS, SARA312, OC HAPS, VOC exempt, TSCA, RCRA, ACGIH, California Proposition 65 Cancer, OSHA
124-38-9	Carbon Dioxide	1% - 5%	SARA312, TSCA, ACGIH, OSHA

SECTION 16) OTHER INFORMATION

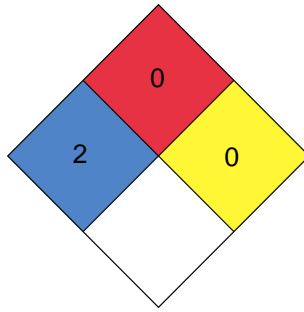
Glossary

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.

HMIS

Health	* 2
FLAMMABILITY	0
Physical Hazard	0
Personal Protection	G

NFPA



(*) - 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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