





SAFETY DATA SHEET

1. Product and Company Identification

PRODUCT NUMBER:	1182301	COMPANY PHONE:	1-800-241-8180
PRODUCT NAME:	ELECTRO SOLV II	EMERGENCY TELEPHONE:	1-800-535-5053
PRODUCT DESCRIPTION:	Aerosol Safety Solvent	INFOTRAC:	1-800-535-5053
COMPANY INFORMATION:	PRO CHEM, INC. 1475 Bluegrass Lakes Parkway Alpharetta, GA 30004		

2. Hazards Identification

GHS CLASSIFICATION: Aerosols - Category 3 Acute toxicity Inhalation Gas (ppmV) - Category 4 Acute toxicity Oral - Category 5 Carcinogenicity - Category 1B Eye Irritation - Category 2 Germ Cell Mutagenicity - Category 2 Skin Irritation - Category 2 Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3 Acute aquatic toxicity - Category 3 Chronic aquatic toxicity - Category 3 Safety data sheet prepared in accordance to the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).	SIGNAL WORD: DANGER	SYMBOL:		
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HAZARD STATEMENTS:

Hazardous Statements – Physical: H229 - Contains gas under pressure; may explode if heated.

Hazardous Statements – Health:

H332 - Harmful if inhaled.
H303 - May be harmful if swallowed.
H350 - May cause cancer.
H319 - Causes serious eye irritation.
H341 - Suspected of causing genetic defects.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness

Hazardous Statements – Environmental: H412 - Harmful to aquatic life with long lasting effects

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.

Prevention: P273 - Avoid release to the environment.

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

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

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P251 - Pressurized container: Do not pierce or burn, even after use.

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/face protection.

P264 - Wash thoroughly after handling.

P233 - Keep container tightly closed.

Response: P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

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

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

P321 - For specific treatment see section 4 of SDS.

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

P362 + P364 - Take off contaminated clothing. And wash it before reuse.

Storage: P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

P405 - Store locked up.

P403 + P405 - Store in a well-ventilated place. Store locked up.

Disposal: P501 - Dispose of contents/container to disposal recycling center. 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.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC):

None.

3. Composition / Information on Ingredients		
Chemical Name	CAS	Concentration % by Weight
TRICHLOROETHYLENE	79-01-6	68% - 100%
CO2	124-38-9	1.2% - 3%

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

4. First Aid Measures	
EMERGENCY OVERVIEW	
EYES:	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:	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 re-use. IF exposed or concerned: Get medical advice/attention.
INHALATION:	Remove source of exposure or move person to fresh air and keep comfortable for breathing. If exposed/If you feel unwell/If concerned: Call a POISON CENTER/doctor. Eliminate all ignition sources if safe to do so.
INGESTION:	Immediately call a POISON CENTER/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.	
IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NECESSARY:	
No data available.	

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 result in frothing and increase fire intensity.	
UNSUITABLE FIRE 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.	

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

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.	

8. Exposure Controls / Personal Protection

PERSONAL PROTECTIVE EQUIPMENT:



Eye/Face 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 (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin Designation	NIOSH TWA (ppm)
CO2	5000	9000			1			5000
TRICHLOROETHYLENE	100 (a) / 200 ceiling		300 / 5 mins. in any 2 hrs.(a)		1,2			25b

Chemical Name	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)
CO2	9000	30000	54000		5000		30000	
TRICHLOROETHYLENE				1	10		25	

9. Physical & Chemical Properties

Appearance:	N.A.	Flammability:	N.A.
Odor Description:	N.A.	Explosive Limit-Lower (%):	N.A.
Odor Threshold:	N.A.	Explosive Limit-Upper (%):	N.A.
pH:	N.A.	Vapor Density:	N.A.
Melting/Freezing Point:	N.A.	Vapor Pressure:	N.A.
Low Boiling Point:	N.A.	Density:	N.A.
High Boiling Point:	N.A.	Density VOC:	N.A.
Viscosity:	N.A.	VOC Actual(g/l):	N.A. g/l
Flash Point:	N.A.	% VOC:	N.A.
Flash Point Symbol:	N.A.	VOC Composite Partial Pressure:	N.A.
Evaporation Rate:	N.A.	Solubility (water):	N.A.
Auto-Ignition Temp:	N.A.		

10. Stability & Reactivity Information

STABILITY:

Stable under normal storage and handling conditions.

HAZARDOUS REACTIONS/POLYMERIZATION:

Will not occur.

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 DECOMPOSITION PRODUCTS:

No data available.

11. Toxicological Information

LIKELY ROUTE OF EXPOSURE:

Inhalation, ingestion, skin absorption.

SKIN CORROSION/IRRITATION:

Prolonged or repeated contact with this product may dry and/or defat the skin. This product may be harmful if it is absorbed through the skin.

Causes skin irritation.

0000079-01-6 TRICHLOROETHYLENE

Contact can irritate and burn the skin. Defatting action can cause dermatitis.

SERIOUS EYE DAMAGE/IRRITATION:

Eye contact may lead to permanent damage if not treated promptly. Liquid or vapors may irritate the eyes.

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Eye contact may lead to permanent damage if not treated promptly. Causes serious eye irritation.

0000079-01-6 TRICHLOROETHYLENE

Contact can irritate and burn eyes with possible eye damage. Slightly irritating sensation and lachrymation.

RESPIRATORY/SKIN SENSITIZATION:

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

GERM CELL MUTAGENICITY:

Suspected of causing genetic defects.

CARCINOGENICITY:

May cause cancer.

0000079-01-6 TRICHLOROETHYLENE

This substance is carcinogenic to humans.

REPRODUCTIVE TOXICITY:

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

0000079-01-6 TRICHLOROETHYLENE

Causes toxicity to human reproduction or development. Possible teratogen in humans.

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE:

May cause drowsiness or dizziness.

0000079-01-6 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:

Causes damage to organs through prolonged or repeated exposure. Based on available data, the classification criteria are not met.

0000079-01-6 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:

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

ACUTE TOXICITY:

If inhaled, may cause dizziness, nausea, upper respiratory irritation, drowsiness, mental depression or narcosis, difficulty in breathing, irregular heart beats. Harmful if inhaled. May be harmful if swallowed.

0000079-01-6 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.

LIKELY ROUTES OF EXPOSURE:

Inhalation, Ingestion, Skin contact, Eye contact

0000079-01-6 TRICHLOROETHYLENE

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

0000079-01-6 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)

12. Ecological Information**TOXICITY:**

Harmful to aquatic life.

Harmful to aquatic life with long lasting effects.

PERSISTENCE AND DEGRADABILITY:

No data available.

BIOACCUMULATIVE POTENTIAL:

No data available.

MOBILITY IN SOIL:

No data available.

OTHER ADVERSE EFFECTS:

No data available.

13. Disposal Consideration**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.

14. Transportation Information

DOT: **Ground Transportation:** (Continental United States, Canada & Mexico): Limited Quantity

IATA: We do NOT recommend this product to be shipped via air. It would need to be repacked by an authorized packing company and the DG would have to be completed by a licensed hazardous material shipping company.

IMDG: **Shipping Name:** Aerosols

UN/NA #: 1950

Hazard Class: 2.1

Required Placard: Limited Quantity

Marine Pollutant: No data available

15. Regulatory Information

CAS	Chemical Name	% By Weight	Regulation List
79-01-6	TRICHLOROETHYLENE	68% - 100%	SARA313, Canada NPRI, DSL, HAPS, SARA312, OC_HAPS, VOC, TSCA, RCRA, REACH_SVHC - REACH_Substances of Very High Concern, REACH_SVHC_Carcinogenic - REACH_Substances of Very High Concern Carcinogenic, CA Prop65 - California Proposition 65
124-38-9	CO2	1.2% - 3%	DSL, SARA312, TSCA



WARNING: This product can expose you to chemicals including TRICHLOROETHYLENE which is known to the State of California to cause cancer and TRICHLOROETHYLENE which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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; N.A. - Not Available; 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.

DISCLAIMER:

To the best of our knowledge, information contained herein is accurate. However, there is no assumption of liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard, which exists. The information contained in this SDS was obtained from current and reliable sources; however, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product, which may not be covered by this SDS. The user is responsible for full compliance.