SAFETY DATA SHEET

1. Product and Company Identification

PRODUCT NUMBER:	1681	**COMPANY PHONE:**	1-800-241-8180
PRODUCT NAME:	PRO TOOLS ELECTRONIC CLEANER	**EMERGENCY TELEPHONE:**	1-800-241-8180
PRODUCT DESCRIPTION:	Contact and Circuit Board Cleaner	**INFOTRAC:**	1-800-535-5053
COMPANY INFORMATION:	**PRO CHEM, INC.** 1475 Bluegrass Lakes Parkway Alpharetta, GA 30004		

2. Hazards Identification

GHS CLASSIFICATION:	**SIGNAL WORD:**	**SYMBOL:**	
Skin Irritation: Category 2 Eye Irritation: Category 2A Acute aquatic toxicity: Category 3 Aerosols: Category 3 Chronic aquatic toxicity: Category 3	**WARNING**		

HAZARD STATEMENTS:

H229 - Pressurized container: May burst if heated.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H402 - Harmful to aquatic life.
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:
P264 - Wash thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P273 - Avoid release to the environment.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251 - Do not pierce or burn, even after use.

Response:
P302 + P352 - IF ON SKIN: Wash with plenty of water.
P321 - For specific treatment, see Section 4.
P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P362 + P364 - Take off contaminated clothing. And wash it before reuse.
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.

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

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.

3. Composition / Information on Ingredients

Chemical Name	CAS	Concentration % by Weight
1,2-Dichloroethylene	156-60-5	38-62
1,1,1,2-Tetrafluoroethane	811-97-2	17-29
1,1,1,2,3,4,4,5,5,5-Decafluoropentane	138495-42-8	8-18
CO_2	124-38-9	3-6
Ethyl Alcohol	64-17-5	0.1-2
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/feel unwell/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. Do not give anything.

5. Fire-Fighting Measures

SUITABLE FIRE EXTINGUISHING MEDIA:

Dry chemical, foam, carbon dioxide is recommended. Water spray is recommended to cool or protect exposed materials or structures. 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 FIRE EXTINGUISHING MEDIA:

No data available.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

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 buildup of internal pressures. Cool with water.

DO NOT cut, drill, grind, or weld near full, partially full, or empty product containers. Container could potentially burst or be punctured upon mechanical impact, releasing flammable vapors.

SPECIFIC FIRE-FIGHTING METHODS:

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 EQUIPMENT FOR FIREFIGHTERS:

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:

Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

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 & MATERIALS FOR CONTAINMENT & CLEAN-UP:

Cover spills with inert absorbent and place in closed chemical waste containers.

7. Handling and Storage

SAFE HANDLING:

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.

SAFE STORAGE & INCOMPATIBILITIES:

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)	NIOSH TWA (mg/m³)	NIOSH STEL (ppm)	NIOSH STEL (mg/m³)	NIOSH Carcinogen
1,1,1,2,3,4,4,5,5,5-Decafluoropentane		2.5			1							
1,1,1,2-Tetrafluoroethane		2.5			1							
1,2-Dichloroethylene												
CO2	5000	9000			1			5000	9000	30000	54000	
Ethyl Alcohol	1000	1900			1			1000	19000			

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m³)	ACGIH STEL (ppm)	ACGIH STEL (mg/m³)
1,1,1,2,3,4,4,5,5,5-Decafluoropentane		2.5		
1,1,1,2-Tetrafluoroethane		2.5		
1,2-Dichloroethylene	200	793		
CO2	5000	9000	30000	54000
Ethyl Alcohol			1000	

9. Physical & Chemical Properties

Appearance:	Clear liquid.	**Flammability(solid/gas):**	Not available.
Odor:	Characteristic.	**Evaporation Rate:**	Not available.
Odor Threshold:	Not available.	**VOC Composite Partial Press:**	Not available.
pH:	Not available.	**Explosive Limit-Lower (%):**	Not available.
Freezing Point:	Not available.	**Explosive Limit-Upper (%):**	Not available.
High/Low Boiling Point:	Not available.	**Vapor Density:**	Not available.
Viscosity:	Not available.	**Vapor Pressure:**	Not available.
Flash Point:	Not available.	**Solubility (water):**	Not available.
VOC Actual:	9.41227 g/l	**Auto-Ignition Temp:**	Not available.
VOC Actual:	0.07855 lb/gal	**Density:**	0.14281 lb/gal
Flash Point Symbol:	Not available.	**Density VOC:**	0.07855 lb/gal
Melting Point:	Not available.	**% VOC:**	55.00000%

10. Stability & Reactivity Information

STABILITY:
Material is stable at standard temperature and pressure.
HAZARDOUS REACTIONS/POLYMERIZATION:
Will not occur.
INCOMPATIBLE MATERIALS:
Avoid strong oxidizers, reducers, acids, and alkalis.
CONDITIONS TO AVOID:
Keep away from direct sunlight and other sources of ignition. Dropping containers may cause bursting.
HAZARDOUS DECOMPOSITION PRODUCTS:
No data available.

11. Toxicological Information

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.
SERIOUS EYE DAMAGE/EYE 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.
RESPIRATORY/SKIN SENSITIZATION:
No data available.
GERM CELL MUTAGENICITY:
No data available.
CARCINOGENICITY:
No data available.
REPRODUCTIVE TOXICITY:
No data available.
SPECIFIC TARGET ORGAN TOXICITY -single exposure:
No data available.
SPECIFIC TARGET ORGAN TOXICITY -repeated exposure:
Prolonged exposure may cause damage to her central nervous system, lungs, skin and eyes.
ASPIRATION HAZARD:
No data available.

ACUTE TOXICITY:

If inhaled, may cause dizziness, nausea, upper respiratory irritation, drowsiness, mental depression or narcosis, difficulty in breathing, irregular heartbeats.

0000064-17-5 ETHYL ALCOHOL

LC50 (mouse): Approximately 21000 ppm (4-hour exposure); cited as 39 g/m3 (4-hour exposure) (1, unconfirmed)

LD50 (oral, rat): 7060 mg/kg (41); 10600 mg/kg (41); 13660 mg/kg (37)

LD50 (oral, mouse): 3450 mg/kg (1, unconfirmed)

LD50 (oral, guinea pig): 5560 mg/kg (37)

POTENTIAL HEALTH EFFECTS – Miscellaneous:

0000064-17-5 ETHYL ALCOHOL

The following medical conditions may be aggravated by exposure: liver disease. Tests in some laboratory animals indicate this compound may have embryotoxic activity. Tests in animals demonstrate reproductive toxicity. Ingestion may cause any of the following: stupor (central nervous system depression), gastrointestinal irritation. If absorbed through the skin, may be: harmful.

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

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 INFORMATION:

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

IATA INFORMATION:

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: **UN Number:** UN1950

UN Proper Shipping Name: Aerosols, flammable.

Transport Hazard Class(es):

Class: 2.1

Required Placard: Limited Quantity.

Marine Pollutant: No data available.

15. Regulatory Information

CAS	Chemical Name	% By Weight	Regulation List
0000156-60-5	1,2-Dichloroethylene	38-62	DSL, CERCLA, SARA 312, VOC, TSCA, RCRA
0000811-97-2	1,1,1,2-Tetrafluoroethane	17-29	DSL, SARA 312, VOC_exempt, TSCA
0138495-42-8	1,1,1,2,3,4,4,5,5,5-Decafluoropentane	8-18	DSL, SNAC, SARA 312, VOC_exempt, TSCA
0000124-38-9	CO_2	3-6	DSL, SARA 312, TSCA
0000064-17-5	Ethyl Alcohol	0.1-2	Canada_NPRI, DSL, SARA 312, VOC, TSCA

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
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

HMIS	Health Hazards: 2	Flammability: 0	Physical hazards: 2	Personal protection:

DISCLAIMER:

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