SAFETY DATA SHEET
CONTACT CLEANER & PROTECTANT

SECTION 1. IDENTIFICATION

Product name: Energized Electrical Contact Cleaner & Protectant
Product code: 0321-3360
Product Use: Solvent cleaner
Company Name: TAMCO Group
Company Address: 11675 SW Tom Mackie Blvd, Port St. Lucie, FL 34987
Company Phone: 772-878-4944
Emergency telephone number of the company: 800-255-3924

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture: CLASSIFICATION: Dissolved Gas
Skin Irritant: Category 2
Eye Irritant: Category 2A
Specific Target Organ Toxicity (Single Exposure): Category 3
Carcinogenicity: Category 1B
Germ Cell Mutagenicity: Category 2
Aspiration Hazard: Category 1

GHS label elements
Hazard pictograms

Signal Word: Danger

SECTION 2. HAZARDS IDENTIFICATION

Hazard statements:

DANGER: Contains gas under pressure; May explode if heated.
Causes skin and serious eye irritation.
May cause drowsiness and dizziness.
May cause cancer.
Suspected of causing genetic defects.
May be fatal if swallowed and enters airways.
This product contains the following percentage of chemicals of unknown toxicity: 0%

Precautionary statements:

Keep away from heat, sparks, open flames, and hot surfaces. -No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50°C/120°F. Store in a well-ventilated place. Wash hands thoroughly after handling. Wear protective gloves, eye protection and protective clothing. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. If exposed or concerned: Get medical advice or attention. Avoid breathing fumes, mist, vapors, and spray. Use only outdoors or in a well-ventilated area. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. If swallowed: Immediately call a poison center or doctor. Do NOT induce vomiting. Dispose of contents and container in accordance with local, state, and national regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS number/other identifiers:

Ingredient name	% by weight	CAS number
Carbon Dioxide	3-7%	124-38-9
Trichloroethylene	30-60%	79-01-6
Tetrachloroethylene	30-60%	127-18-4

SECTION 4. FIRST AID MEASURES

Description of necessary first aid measures

Eye contact: Remove contact lenses. Flush with water for at least 15 minutes. See a physician if irritation persists.

Inhalation: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.

Skin contact: Immediately wash with soap and water for 15 minutes. Remove contaminated clothing and shoes immediately. Seek medical attention if irritation persists.

Ingestion: Rinse mouth with water. Do not induce vomiting unless directed by medical authority. Seek medical attention.

Most important symptoms/effects, acute and delayed

Potential acute health effects:

Inhalation: Dizziness, drowsiness, weakness, and fatigue.

Eye: Stinging, tearing, redness.

Oral: Vomiting, nausea, irritation.

Skin: Prolonged or repeated contact may dry skin.

SECTION 4. FIRST AID MEASURES

CHRONIC HEALTH HAZARDS: Possible cancer causing agent and overexposure may also include damage to kidneys, liver, dizziness, headache, nausea, mental confusion, visual disturbances, dermatitis, lungs, blood, or central nervous system.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Do not administer adrenaline or epinephrine to a victim of chlorinated solvent poisoning. This product contains ingredients that may be anticipated to be a carcinogen.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Use appropriate media for surrounding fire.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: Wear NIOSH approved Self Contained Breathing Apparatus with a full face piece operated in a positive pressure demand mode with full body protective clothing when fighting fires. Use water spray only to cool exposed containers.

Unusual Fire and Explosion Hazards: Contents under pressure. Exposure to temperatures above 120˚F may cause bursting.

Hazardous Combustion Products: Oxides of carbon, chlorine, hydrogen chloride and phosgene.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal protective equipment: Refer to section VIII for proper Personal Protective Equipment.

Spill:	Use absorbent on spill, sweep to clean. Dispose in accordance with local, state and federal laws. Small releases may be wiped up with wiping material.
Waste disposal:	Dispose of in accordance with federal, state, and local regulations. Do not dump in sewers. Wrap container and place in trash collection, do not puncture, incinerate, or reuse container.
RCRA Status:	Waste solvent likely considered U228 (Trichloroethylene), hazardous, under RCRA, however product should be fully characterized prior to disposal (40 CFR 261).

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Protective measures:	Protect from sunlight. Store in a well ventilated place. Do not expose to temperatures exceeding 50°C/122°F. Pressurized container: Do not pierce or burn, even after use. Store locked up.
Other precautions:	Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warning and precautions listed for the product. Keep out of the reach of children.
Conditions for safe storage, including any incompatibilities:	Strong acids, strong alkalis, strong oxidizing agents, chemically active metals, such as aluminum, barium, lithium, sodium, magnesium, potassium, titanium, beryllium, concentrated nitric acid some plastics, rubbers, and coatings.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Carbon Dioxide	**OSHA PEL** 5000 ppm **ACGIH TLV** 5000 ppm
Trichloroethylene	**OSHA PEL** 10 ppm **ACGIH TLV** 25 ppm
Tetrachloroethylene	**OSHA PEL** 25 ppm **ACGIH TLV** 100 ppm

Engineering controls/ ventilation: Material is heavier than air. Material may concentrate in low lying areas. Normal, forced ventilation required to meet TLV requirements. Local exhaust ventilation is generally preferred.

Respiratory protective equipment: Wear NIOSH/MSHA approved organic vapor respiratory protection if used in confined, poorly ventilated areas.

Personal protective equipment: Safety glasses, gloves, and synthetic apron.

Additional measures: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, Colorless Spray
Odor:	Chlorinated solvent odor
Odor threshold:	Not available
Boiling point:	>188°F (87°C)
Freezing point:	Not available
Flammability:	Not considered a flammable aerosol or an extremely flammable aerosol by OSHA (29CFR 1910.1200)
Flash point:	Not available
Autoignition Temperature:	Not available
Lower flammability limit:	Not available
Upper flammability limit:	Not available
Vapor pressure (mm Hg):	59
Vapor density (AIR=1):	4.5
Evaporation rate:	> 3 (Fast)
Specific gravity (H20=1):	1.52
pH:	Not available
Solubility in water:	0%
Partition coefficient: n-octanol/water (kow):	Not available
Volatile organic compounds (voc):	50%
Decomposition temperature:	>400°C
Viscosity:	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity:	Chemically active metals and acids
Chemical stability:	The product is stable.
Possibility of hazardous reactions:	None Known.
Conditions to avoid:	Temperatures greater than 122°F may cause bursting.
Incompatible materials:	Strong acids, strong alkalis, strong oxidizing agents, chemically active metals, such as aluminum, barium, lithium, sodium, magnesium, potassium, titanium, beryllium, concentrated nitric acid some plastics, rubbers, and coatings.
Hazardous decomposition products:	Oxides of carbon, chlorine, hydrogen chloride and phosgene.

SECTION II. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity

Trichloroethylene (79-01-6) LD50 (Oral, Rat) 4920 mg/kg; LD50 (Dermal, Rabbit) > 20000 mg/kg; LC50 (Inhalation, Mouse, 4hr) 8450 ppm

Tetrachloroethylene (127-18-4) LD50 (Oral, Rat) 2629 mg/kg; LC50(Inhalation, Mouse, 8hr) 34200 mg/m3

Routes of entry:	Eyes, Ingestion, Inhalation, Skin.
Eyes:	Causes irritation, burning, redness, tearing.
Ingestion:	Causes gastrointestinal irritation, headaches, nausea, diarrhea, vomiting, abdominal cramps.
Inhalation:	Irritation to respiratory tract, dizziness, headache, nausea, depression of central nervous system, prolonged exposure may cause unconsciousness, heart effects, liver effects, kidney effects, and death.
Skin:	Irritation likely, redness and pain. May cause localized defatting, blistering with prolonged skin contact. May be absorbed through the skin.
Medical condition aggravated :	Excessive exposure will aggravate pre-existing disorders of eyes, skin, respiratory, liver, kidney, cardiovascular system, pulmonary illnesses, or central nervous system.
Acute health hazards:	Inhalation: dizziness, drowsiness, weakness, and fatigue Eye: stinging, tearing, redness Oral: Vomiting, nausea, irritation Skin: Prolonged or repeated contact may dry skin
Chronic health hazards:	Possible cancer causing agent and overexposure may also include damage to kidneys, liver, dizziness, headache, nausea, mental confusion, visual disturbances, dermatitis, lungs, blood, or central nervous system.
Carcinogenicity:	OSHA: Yes ACGIH: A2 - Suspected NTP: 2 - Anticipated IARC: 2A - Probable OTHER: CA Prop 65

SECTION 12. ECOLOGICAL INFORMATION

Ecological information: Trichloroethylene (79-01-6) LC50 (96hr) Fish: 41 - 67 mg/L.

Biodegradability: Component or components of this product are not biodegradable.

Bioaccumulation: This product is not expected to bioaccumulate.

Soil mobility: This product is mobile in soil.

Other ecological hazards: None known.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods: WASTE DISPOSAL: Dispose of in accordance with federal, state, and local regulations. Do not dump in sewers. Wrap container and place in trash collection, do not puncture, incinerate, or reuse container.

RCRA STATUS: Waste solvent likely considered U228 (Trichloroethylene), hazardous, under RCRA, however product should be fully characterized prior to disposal (40 CFR 261).

SECTION 14. TRANSPORT INFORMATION

Shipping:

PROPER SHIPPING NAME: Aerosols, Ltd. Qty.

HAZARD CLASS/DIVISION: 2.2 (6.1)

UN/NA NUMBER: UN 1950

PACKAGING GROUP: N/A

AIR SHIPMENT

PROPER SHIPPING NAME: Aerosols, Non-Flammable, Toxic, Containing Substances in Division 6.1 Packaging Group III

HAZARD CLASS/DIVISION: 2.2 (6.1)

UN/NA NUMBER: UN 1950

PACKAGING GROUP: N/A

SHIPPING BY WATER: VESSEL (IMO/IMDG)

PROPER SHIPPING NAME: Aerosols, Toxic

HAZARD CLASS/DIVISION: 2.2 (6.1)

UN/NA NUMBER: UN 1950

PACKAGING GROUP: N/A

ENVIRONMENTAL HAZARDS WATER: N/A

SECTION 15. REGULATORY INFORMATION

Tsca status:	All Chemicals are listed or exempt.
Cercla (comprehensive response compensation, and liability act):	Trichloroethylene (79-01-6) Reportable Quantity = 100 lbs Tetrachloroethylene (127-18-4) Reportable Quantity = 100 lbs
Sara 311/312 hazard categories:	Acute Health, Chronic Health.
Sara 313 reportable ingredients:	Trichloroethylene (79-01-6) Tetrachloroethylene (127-18-4)
State regulations:	CA Prop 65: This product can expose you to chemicals including Trichloroethylene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. Trichloroethylene (79-01-6) Right-to-Know: NY, RI, PA, FL, MN, MA, MI, NJ, TN.
International regulations:	Trichloroethylene, CAS 79-01-6, - EC - yes, Japan – yes, Australia – yes, Korea – yes, Canada DSL – yes, Canada NDSL –no, Philipenes – yes. Tetrachloroethylene (127-18-4) WHMIS (Canada) Class D-1B: Material causing immediate and serious toxic effects (TOXIC). Class D-2A: Material causing other toxic effects (VERY TOXIC).

NFPA HEALTH: 2
NFPA FLAMMABILITY: 1
NFPA REACTIVITY: 0
NFPA OTHER: None

HMIS HEALTH: 2
HMIS FLAMMABILITY: 1
HMIS REACTIVITY: 0
HMIS PROTECTION: C

SECTION 14. ADDITIONAL INFORMATION

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.