

Safety Data Sheet
Kleen-Solv

SECTION I - IDENTIFICATION

PRODUCT NAME: Kleen-Solv
PRODUCT CODE: 9612, 9894, 9895, 8432
PRODUCT USE: Energized Electrical Equipment Cleaner
COMPANY NAME: Tifco Industries
COMPANY ADDRESS: P.O. Box 40277 Houston, TX 77240
COMPANY PHONE: 1-800-571-6000
EMERGENCY PHONE: 800-255-3924

SECTION II – HAZARDS IDENTIFICATION

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

HAZARD STATEMENT(S): 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.

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 50C/120F. Store in a well-ventilated place. Wash hands thoroughly after handling. 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. Wear protective gloves, eye protection, and protective clothing. If exposed or concerned: Get medical advice or attention. Store locked up. Dispose of contents and container in accordance with local, state, and national regulations. 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.



SYMBOL:

HAZARDS NOT OTHERWISE CLASSIFIED: N/A

SECTION III – COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	CAS NUMBER	PERCENT
Carbon Dioxide	124-38-9	3-7%
Trichloroethylene	79-01-6	30-60%
Tetrachloroethylene	127-18-4	30-60%

SECTION IV - FIRST AID MEASURES

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

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

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

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

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

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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.

NOTE 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 V – FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Use appropriate media for surrounding fire.

UNSUITABLE EXTINGUISHING MEDIA: N/A

SPECIAL FIRE FIGHTING PROCEDURES: 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 VI – 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 VII – HANDLING AND STORAGE

HANDLING AND STORAGE: 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

INCOMPATIBILITY: 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 VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

HAZARDOUS INGREDIENT	OSHA PEL	ACGIH TLV
Carbon Dioxide	5000 ppm	5000 ppm
Trichloroethylene	10 ppm	25 ppm
Tetrachloroethylene	25 ppm	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 PROTECTION: 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.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear, Colorless Spray

ODOR: Chlorinated solvent odor

ODOR THRESHOLD: N/D

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BOILING POINT: >188°F (87°C)

FREEZING POINT: N/D

FLAMMABILITY: Not considered a flammable aerosol or an extremely flammable aerosol by OSHA (29CFR 1910.1200)

FLASH POINT: N/D

AUTOIGNITION TEMPERATURE: N/D

LOWER FLAMMABILITY LIMIT: N/D

UPPER FLAMMABILITY LIMIT: N/D

VAPOR PRESSURE (mm Hg): 59

VAPOR DENSITY (AIR=1): > 2

EVAPORATION RATE: > 3 (Fast)

SPECIFIC GRAVITY (H₂O=1): 1.52

pH: N/A

SOLIDS (%): 0%

SOLUBILITY IN WATER: 0%

PARTITION COEFFICIENT: n-OCTANOL/WATER (K_{OW}): N/D

VOLATILITY INCLUDING WATER (%): 100%

VOLATILE ORGANIC COMPOUNDS (VOC): 50%

DIELECTRIC STRENGTH (Volts): 29,000

DECOMPOSITION TEMPERATURE: >400°C

VISCOSITY: N/D

SECTION X – STABILITY AND REACTIVITY DATA

REACTIVITY: Chemically active metals and acids

CHEMICAL STABILITY: Stable

CONDITIONS TO AVOID: Temperatures greater than 122°F may cause bursting.

INCOMPATIBILITY: 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 OR BY-PRODUCT: Oxides of carbon, chlorine, hydrogen chloride and phosgene.

POSSIBLE HAZARDOUS REACTIONS: None Known

SECTION XI – TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: **Trichloroethylene** (79-01-6) LD₅₀ (Oral, Rat) 5,650 mg/kg; Tumorigen, mutagenic reproductive effects in humans. **Tetrachloroethylene** (127-18-4) LD₅₀ (Oral, Rat) 2629 mg/kg; LD₅₀ (Dermal, Rabbit) > 3228 mg/kg; LD₅₀ (IPR, Mouse) 4700 mg/kg; LC₅₀ (Inhalation, Mouse, 4hr) 5200 ppm; LC₅₀ (Inhalation, Rat, 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 XII – ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: **Trichloroethylene** (79-01-6) LC₅₀ (96hr) Fish: 10 and 100 mg/L. Slightly toxic to aquatic life.

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

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BIOACCUMULATION: This product is not expected to bioaccumulate.

SOIL MOBILITY: This product is mobile in soil.

OTHER ECOLOGICAL HAZARDS: None Known

SECTION XIII – DISPOSAL CONSIDERATIONS

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 XIV - TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Aerosols, poison, Packing Group III, Ltd. Qty.

HAZARD CLASS/DIVISION: 2.2 (6.1)

UN/NA NUMBER: UN 1950

PACKAGING GROUP: N/A

AIR SHIPMENT

PROPER SHIPPING NAME: Forbidden

HAZARD CLASS/DIVISION: 2.2 (6.1)

UN/NA NUMBER: UN 1950

SHIPPING BY WATER:

VESSEL (IMO/IMDG)

PROPER SHIPPING NAME: Aerosols, Marine Pollutant

HAZARD CLASS/DIVISION: 2.2 (6.1)

UN/NA NUMBER: UN 1950

ENVIRONMENTAL HAZARDS WATER: Marine Pollutant

SECTION XV - 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: Trichloroethylene (79-01-6) is known to the state of California to cause cancer.

Trichloroethylene (79-01-6) Right-to-Know acts for New York, Rhode Island, Pennsylvania, Florida, Minnesota, Massachusetts, Michigan, New Jersey, Tennessee; Spill Reporting for Massachusetts, New Jersey, Louisiana; Connecticut hazardous material survey; Illinois toxic substances disclosure to employee act

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 XVI - ADDITIONAL INFORMATION

PREPARATION BY: Jonathon Jarvis

DATE PREPARED: 12/13/2013

REVISION DATE: 06/27/2023

N/A = Not Applicable; N/D = Not Determined

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