

# Safety Data Sheet

Kleen-Solv

## SECTION I - IDENTIFICATION

**PRODUCT NAME:** Kleen-Solv  
**PRODUCT CODE:** 9612, 9894, 8432, 9895  
**PRODUCT USE:** Solvent cleaner  
**COMPANY NAME:** Tifco Industries  
**COMPANY ADDRESS:** PO Box 40277, Houston, TX 77240-0277  
**COMPANY PHONE:** 281-571-6000  
**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  
Aspiration Hazard: Category 1

**HAZARD STATEMENT(S): DANGER:** Contains gas under pressure; May explode if heated. Causes skin and serious eye irritation. May cause drowsiness or 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.

**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.

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**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

**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.

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## SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Clear, Colorless Spray

**ODOR:** Chlorinated solvent odor

**ODOR THRESHOLD:** N/D

**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):** 4.5

**EVAPORATION RATE:** > 3 (Fast)

**SPECIFIC GRAVITY (H<sub>2</sub>O=1):** 1.52

**pH:** N/A

**SOLUBILITY IN WATER:** 0%

**PARTITION COEFFICIENT: n-OCTANOL/WATER (K<sub>ow</sub>):** N/D

**VOLATILE ORGANIC COMPOUNDS (VOC):** 50%

**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) LD<sub>50</sub> (Oral, Rat) 4920 mg/kg; LD<sub>50</sub> (Dermal, Rabbit) > 20000 mg/kg; LC<sub>50</sub> (Inhalation, Mouse, 4hr) 8450 ppm Tetrachloroethylene (127-18-4) LD<sub>50</sub> (Oral, Rat) 2629 mg/kg; LC<sub>50</sub> (Inhalation, Mouse, 8hr) 34200 mg/m<sup>3</sup>

**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

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## SECTION XII – ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:** Trichloroethylene (79-01-6) LC<sub>50</sub> (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 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, 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 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: 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

**HMIS HEALTH:** 2

**NFPA FLAMMABILITY:** 1

**HMIS FLAMMABILITY:** 1

**NFPA REACTIVITY:** 0

**HMIS REACTIVITY:** 0

**NFPA OTHER:** None

**HMIS PROTECTION:** C

## SECTION XVI - ADDITIONAL INFORMATION

**PREPARATION BY:** Chioma Agbai

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**DATE PREPARED:** 12/13/2013

**REVISION DATE:** 03/14/2018

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

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