Safety Data Sheet

Section 1: Product identification and use

Product Identifier: **TCI 119 H.D.**

Process Identifier: Ultra-Purity Non-Residual d-Limonene Solvent High Dielectric Strength Electric Motor spray & immersion cleaner

24H EMERGENCY: 613-996-6666

Manufacturer's name and address:

Tetra-Chem Industries Ltd.
271 Ingersoll St. S., Ingersoll ON N5C 3J7 Canada
Phone: 519-485-4370 — Toll free: 888-658-5515

Supplier's name and address:

Tetra-Chem Industries Ltd.
271 Ingersoll St. S., Ingersoll ON N5C 3J7 Canada
Phone: 519-485-4370 — Toll free: 888-658-5515

Section 2: Hazard identification

GHS Classification
Flammable Liquids: Category 3
Aspiration Hazard: Category 2
Skin Corrosion/Irritation: Category 2
Serious Eye Damage/Eye Irritation: Category 2B
Toxic To Aquatic Life: Category: 2

Pictograms

Signal Word
Warning

Hazard Statements
H226—Flammable liquid and vapour.
H305—May be fatal if swallowed and enters airways.
H315—Causes skin irritation.
H320—Causes eye irritation.
H317—May cause an allergic skin reaction.
H411—Toxic to aquatic life with long-lasting effects.

Precautionary Statements
P210—Keep away from heat and sources of ignition. No Smoking.
P233—Keep container tightly closed.
P240—Ground or bond container and receiving equipment.
P241—Use explosion-proof electrical, ventilating, lighting equipment.
P242—Use only non-sparking tools.
P243—Take precautionary measures against static discharge.
P264—Wash hands thoroughly after handling.
P273—Avoid release into the environment.
P280—Wear protective gloves, eye protection.
P301+P310—IF SWALLOWED: Immediately call a doctor at local hospital emergency department.
P302+P352—IF ON SKIN: Wash with plenty of soap and water for 15 minutes.
P303+P361+P353—IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with soap and water or take a shower.
P305+P351+P338—IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P321—Specific treatment (use soap and water for skin contact).
P331—Do NOT induce vomiting.
P332+P313—If skin irritation occurs: Get medical advice or attention.
P337+P313—If eye irritation persists get medical advice or attention.
P362+P364—Take off contaminated clothing and wash it before reuse.
P370+P378—In case of fire: Use dry chemical fire extinguisher.
P391—Collect spillage.
P403+P235—Store in a well ventilated place. Keep cool.
P405—Store locked up.
P501—Dispose of contents in accordance with local, regional, national and international government regulations. Return container to supplier for recycling.

Section 3: Composition / information on ingredients

Hazardous Ingredients:	CHEMICAL NAME	CAS NUMBER	CONCENTRATION [%]
	1-methyl-4-(1-methylethenyl) cyclohexane	5989-27-5	60-80

Section 4: First aid measures

Description of First Aid Measures
General: Low risk to adverse health effects.
Inhalation: Excessive exposure - move the fresh air.
Skin Contact: Wash with cold water.
Eye Contact: Remove contact lenses. Rinse with cold water or saline solution.
Ingestion: Seek immediate medical attention. Do not induce vomiting.

Most Important Symptoms and Effects Both Acute and Delayed
General: Low risk to adverse health effects.
Inhalation: Respiratory irritation and possible dizziness.
Skin Contact: Irritation caused by defatting of skin.
Eye Contact: Itching irritation, redness.
Ingestion: Burning sensation with gastrointestinal irritation.

Section 5: Fire-fighting measures

Extinguishing Media
Suitable Extinguishing Media: Water spray or Dry chemical.
Unsuitable Extinguishing Media: Not available.
Special Hazards Arising From the Substance or Mixture
Fire Hazard: Know the Fire Extinguisher location at your workstation.
Explosion Hazard: None under normal conditions. Volatile when heated. Keep away from High Energy Ignition Sources.
Reactivity: Stable under normal conditions.

Advice for Firefighters
Precautionary Measures Fire: Solvent emulsifies with Water. Solvent will not float on water. Water reduces the spread of fire.
Firefighting Instructions: Keep the container cool.
Protection During Firefighting: Wear self-contained breathing apparatus for firefighting if necessary.
Hazardous Combustion Products: Oxides of Carbon and particulate matter in smoke.

Section 6: Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures
General Measures: Spills on floors are slippery.
For Non-Emergency Personnel
Protective Equipment: Non-slip footwear, safety glasses and protective gloves.
Emergency Procedures: Ventilate area if indoor temperatures reach 30°C plus.Mop up small spills and dispose to sanitary sewer.
Use Non-Sparking equipment. Large spills are not likely but should be contained and resultant waste properly classified prior to disposal (See Section 13).
Phone Number of your local authority for Emergency Spill Response:

_____

For Emergency Personnel
Protective Equipment: Non-slip footwear, safety glasses and protective gloves.
Emergency Procedures: Ventilate area if indoor temperatures reach 30°C plus.
Environmental Precautions
Methods and Material for Containment and Cleaning Up
For Containment: Stop mobility with oil absorbent.
Methods for Cleaning Up: Mop up small spills and dispose to sanitary sewer.
Use Non-Sparking equipment. Large spills are not likely but should be contained and resultant waste properly classified prior to disposal (See Section 13).

Section 7: Handling and storage

Precautions for Safe Handling
Additional Hazards When Processed: Wash out cleaning rags with water.
See GHS WORKPLACE LABEL in your work area.
Hygiene Measures: Do not eat, drink or smoke while using this product. Personal Protection Equipment required when spraying on glue and removing residue with water (High pressure or manual wiping)
Conditions for Safe Storage, Including Any Incompatibilities
Technical Measures: Provide sufficient air exchange in work areas.
Storage Conditions: Only stored in original containers with vented caps away from excessive heat.

Incompatible Materials: Water will deactivate the solvent's cleaning performance. Long term exposure will affect Natural Rubber and most paint coatings.
This product has an approved dedicated application. Consult Manufacturer or Supplier for compatibility.
Special Rules on Packaging: Consult Manufacturer or Supplier.
Specific End Use(s) **TCI 119 H.D. Ultra-Purity Non-Residual d-Limonene Solvent High Dielectric Strength Electric Motor immersion cleaner** is used as an in-place cleaning method for removing contamination inside electric fan motors.
See Product Application Sheet or label QR for safe intended use.

Section 8: Exposure controls / personal protection

Control Parameters
ACGIH TLV: 865mg/m^3 or 30 ppm (8hrs) (TWA)

Exposure Controls
Appropriate Engineering Controls: Adequate ventilation to meet exposure limits by removing the hazard from the work environment. If adequate ventilation is not availableuse NIOSH approved air purifying respirator with organic vapor cartridge or canister.

Personal Protective Equipment:

Other Information: Handle in accordance with good hygiene and safety practices and procedures. Nitrile solvent resistant gloves should be selected and worn.

Section 9: Physical and chemical properties

Information on Basic Physical and Chemical Properties
Physical State: Liquid.
Appearance: Light amber.
Odour: Clean orange aroma.
Odour Threshold: 1 ppm
pH: Neutral.
Relative Evaporation Rate (butyl acetate=1): 0.2
Melting Point: Not applicable.
Freezing Point: –78°C
Boiling Point: 176°C
Flash Point: 43°C.
Auto-ignition Temperature: 237°C

Decomposition Temperature: Not determined.
Flammability (solid/gas): Not determined.
Lower Flammable Limit: 0.7% by volume
Upper Flammable Limit: 6.1% by volume
Vapour Pressure: < 2 mmHg @ 20°C
Relative Vapour Density at 20°C: > 1
Relative Density (water = 1): 0.85
Solubility in Water: Emulsion.
Partition coefficient: n-octanol/water: Not determined.
Viscosity: 1.27 centipoise
Explosion Data – Sensitivity to Mechanical Impact: No
Explosion Data – Sensitivity to Static Discharge: High Energy Ignition Sources.

Section 10: Stability and reactivity

Reactivity: Stable.
Chemical Stability: Stable under normal conditions.
Possibility of Hazardous Reactions: No decomposition under normal degreasing/cleaning conditions.

Conditions to Avoid: Excessive heat, flames and sparks.
Incompatible Materials: Strong Oxidizing Agents.
Hazardous Decomposition Products: Oxides of Carbon and particulate matter in smoke.

Section 11: Toxicological information

Information on Toxicological Effects—Product
Acute Toxicity: > 5,000mg/kg
LD_{50} Data (Species-Route): RAT - oral: >5 g/kg RABBIT - dermal: >5 g/kg
LC_{50} Data (Species-Route): RAT - inhalation: > 5.9 g/m^3 over 4hrs
Skin Corrosion/Irritation: Mild irritation with prolonged exposure defatting.
Serious Eye Damage/Irritation: May cause mild, short-lasting discomfort.
Respiratory or Skin Sensitization: Possible in some susceptible individuals.
Germ Cell Mutagenicity: No available evidence.
Teratogenicity: No available evidence.
Carcinogenicity: No available evidence.

Specific Target Organ Toxicity (Repeated Exposure): No available evidence.
Reproductive Toxicity: No available evidence.
Specific Target Organ Toxicity (Single Exposure): No available evidence.
Aspiration Toxicity Hazard: Chemical pneumonitis or pulmonary edema.
Symptoms/Injuries After Inhalation: No available evidence.
Symptoms/Injuries After Skin Contact: None
Symptoms/Injuries After Eye Contact: Itching/Redness
Symptoms/Injuries After Ingestion: Gastrointestinal irritation and diarrhoea.
Information on Toxicological Effects—Ingredients
All ingredients synergistically defat skin and lead to dermatitis complications.

Section 12: Ecological information

Toxicity: Not expected to be harmful to aquatic organisms or demonstrate chronic toxicity. None of the ingredients are hazardous atmospheric pollutants.
Mobility in Soil: Expected to be readily biodegradable.

Other Adverse Effects
Other Information: VOC's (EPA method 24) 770g/L.

Section 13: Disposal considerations

Waste Disposal Recommendations:
Additional Information: The cleaning process may generate a hazardous industrial waste. Comply with Canadian Ministry of Environment & Energy Regulation 347 and local municipal by-laws. Comply with US EPA's federal, state & local regulations. Tetra-Chem Industries Ltd. is licensed by the Ministry of the Environment and Climate Change for waste management.
Ontario Certificate of Approval # A 800506.
Provincial Waste Class: Waste stream to be determined for treatment method.

Section 14: Transport information

TDGA CANADA - DANGEROUS GOODS: REGULATED
49 CFR (USA) DANGEROUS GOODS: REGULATED
IMDG (VESSEL) DANGEROUS GOODS: REGULATED
IATA (CARGO AIR) DANGEROUS GOODS: REGULATED
IMDG (PASSENGER AIR) DANGEROUS GOODS: REGULATED

EMERGENCY ASSISTANCE: CANADA Canutec 1-888-CANUTEC (1-888-226-8832)

Proper Shipping Name: TERPENE HYDROCARBONS, N.O.S. (1-methyl-4-(1-methylethenyl) cyclohexane
Hazard Class: CLASS 3
Identification Number: UN2319
Packing Group: III
Label/Placard Codes: 3

Section 15: Regulatory information

CANADA: All ingredients are listed on the DSL Domestic Substance List.

USA: All ingredients are listed on the TSCA Toxic Substances Control Act.

Section 16: Other information

Prepared by: Health and Safety Committee
Contact: A. Struthmann Hon. B.Sc.
Telephone: 1-519-536-1617
Date prepared: 2023-03-02

Additional information: The information in this SDS has been obtained from sources believed to be reliable. The manufacturer and supplier provides no warranties express or implied and assumes no responsibility for the accuracy or the completeness of the data contained herein.