TECHNICHEM

SAFETY DATA SHEET

CALYPSOLV® HC

Revision Date: 2018-03-01 **Version 2.0**

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Information

Product Name: CALYPSOLV® HC
Product Description: Isoparaffinic Hydrocarbon

Use: Hydrocarbon formulation for textile cleaning (dry-cleaning). This product has been designed for use in commercial dry-cleaning machines.

Company:
Technichem, Inc.
2349 Lincoln Avenue
Hayward, CA 94545

Emergency Phone Number:
Company Phone Number: (800) 652-5455
24-Hr Emergency Telephone: INFOTRAC (800) 535-5053

SECTION 2 HAZARDS IDENTIFICATION

This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200.

Classification

Combustible liquid: Category 3.
Aspiration toxicant: Category 1.

Labeling
Symbol(s):

Signal Word: Danger

Hazard Statements: H227: Combustible liquid.
H304: May be fatal if swallowed and enters airways.

Precautionary Statements:

P210:	Keep away from flames and hot surfaces. - No smoking.
P280:	Wear protective gloves and eye / face protection.
P301 + P310:	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331:	Do NOT induce vomiting.
P370 + P378:	In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish.
P403 + P235:	Store in a well-ventilated place. Keep cool.
P405:	Store locked up.
P501:	Dispose of contents and container in accordance with local regulations.

NFPA Hazard ID:	Health:	1	Flammability:	2	Reactivity:	0
HMIS Hazard ID:	Health:	1*	Flammability:	2	Reactivity:	0

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Molecular formula: Mixture

Component	CAS#	Weight %	GHS Hazard Codes
Naphtha (Petroleum), Hydrocarbon Heavy	64741-65-7	99.9	H227, H304

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

SECTION 4 FIRST AID MEASURES

Inhalation:	If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.
Skin Contact:	If on skin, rinse well with water. If on clothes, remove clothes.
Eye Contact:	Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
Ingestion:	Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5 FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water fog, foam, dry chemical or carbon dioxide (CO_2).
Unsuitable Extinguishing Media:	High volume water jet.
Fire and Explosion Protection:	Do not spray on an open flame or any other incandescent material. Keep away from open flames, hot surfaces and sources of ignition.
Hazardous Decomposition Products :	Carbon Dioxide. Carbon oxides.

Flash Point:	61.1 °C (142.0 °F) Method: Tag closed cup

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions:	Use personal protective equipment. Ensure adequate ventilation.
Environmental precautions:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods for cleaning up:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

Handling

Advice on safe handling:	Avoid formation of aerosol. Do not breathe vapors/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.
Advice on protection against fire and explosion:	Do not spray on an open flame or any other incandescent material. Keep away from open flames, hot surfaces and sources of ignition.

Storage

Requirements for storage areas and containers:	No smoking. Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Suitable Containers/Packing:	Tankers; Drums; Tank Trucks; Barges; Railcars
Suitable Materials and Coatings (Chemical Compatibility):	Carbon Steel; Stainless Steel; Teflon; Neoprene; Epoxy Phenolics; Inorganic Zinc Coatings
Unsuitable Materials and Coatings:	Butyl Rubber; Ethylene-propylene-diene monomer (EPDM); Natural Rubber; Vinyl Coatings

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limit Values

Exposure limits/standards (Note: Exposure limits are not additive)

Ingredients	Form	Limit / Standard			Note
Naphtha (Petroleum), Hydrocarbon Heavy		TWA	400 mg/m3	100 ppm	N/A
Naphtha (Petroleum), Hydrocarbon Heavy	Vapor.	RCP - TWA	1200 mg/m3	171 ppm	Total Hydrocarbons

Note: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

Engineering Measures

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits.
Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Personal Protective Equipment

Respiratory protection:	Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as:. Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Air-Purifying Respirator for Organic Vapors. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.
Hand protection:	The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Eye protection:	Eye wash bottle with pure water. Tightly fitting safety goggles.
Skin and body protection:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear as appropriate: Flame-resistant clothing. Footwear protecting against chemicals.
Hygiene measures:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

Form:	Liquid
Physical state:	Liquid
Color:	Colorless at room temperature
Odor:	Mild hydrocarbon

Safety Data

Flash point:	61.1 °C (142.0 °F) Method: Tag closed cup
Lower explosion limit:	1.1 %(V)
Upper explosion limit:	6.1 %(V)
Oxidizing properties:	No
Thermal decomposition:	N/A
Molecular formula:	Mixture
Molecular weight:	N/A
pH:	7
Pour point:	N/A
Boiling point/boiling range:	189 - 210 °C (372 - 410 °F)
Relative density:	0.76, 15.6 °C (60.1 °F)
Water solubility:	Negligible
Partition coefficient: n-octanol/water:	N/A
Viscosity, kinematic:	1.55 cSt at 38 ^{0}C (100 ^{0}F)
Evaporation rate:	1
Percent volatile:	> 99 %

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of Hazardous Reactions

Conditions to avoid:	Heat, flames and sparks.
Materials to avoid:	May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Thermal decomposition:	N/A
Hazardous decomposition products:	Carbon Dioxide, Carbon Oxides
Other data:	No decomposition if stored and applied as directed.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute inhalation toxicity

LC50: > 5.3milligram per liter Exposure time: 4 h
Species: rat
Test atmosphere: vapor
Method: OECD Test Guideline 403
Information given is based on data obtained from similar substances.

Acute oral toxicity

LD50: > 5000 milligram per kilogram
Species: rat
Method: OECD Test Guideline 401
Information given is based on data obtained from similar substances.

Skin irritation

No skin irritation
Information given is based on data obtained from similar substances.

Eye irritation

No eye irritation
Information given is based on data obtained from similar substances.

Sensitization

Classification: Did not cause sensitization on laboratory animals.
Information given is based on data obtained from similar substances.

Aspiration

May be fatal if swallowed and enters airways.
Substances known to cause human aspiration toxicity hazards or to be regarded as if they cause human aspiration toxicity hazard.

Mutagenicity

Tests on bacterial or mammalian cell cultures did not show mutagenic effects., In vivo tests did not show mutagenic effects

Carcinogenicity

Limited evidence of carcinogenicity in animal studies

Reproductive Toxicity

Species: rat

Sex: male
Application Route: oral gavage
Dose: 0, 750, 1500, 3000 mg/kg/bw/d
Number of exposures: daily
Test period: 90 d
Method: OECD Test Guideline 415
NOAEL Parent: >= 3000 mg/kg/bw/d
Information given is based on data obtained from similar substances.

Species: rat
Sex: female
Application Route: oral gavage
Dose: 0, 750, 1500 mg/kg/bw/d
Number of exposures: daily
Test period: 90 d
Method: OECD Test Guideline 415
NOAEL Parent: >= 1500 mg/kg/bw/d
NOAEL F1: 750 mg/kg/bw/d
Information given is based on data obtained from similar substances.

Species: rat
Sex: male and female
Application Route: inhalation (vapor)
Dose: 100, 300 ppm
Number of exposures: 6 h/d/5d/wk
Test period: 8 wk
Method: OECD Guideline 421
NOAEL Parent: >= 300 ppm
NOAEL F1: >= 300 ppm
Information given is based on data obtained from similar substances.

Repeated dose toxicity

Species: Monkey
Application Route: Inhalation
Dose: 0, 654 ppm
Exposure time: 4 wk
Number of exposures: 6 h/d, 3 d/wk
NOEL: > 654 ppm
Method: OECD Test Guideline 412

Species: rat, male and female
Sex: male and female
Application Route: oral gavage
Dose: 0, 25, 150, 1000 mg/kg/d
Exposure time: 4 wk
Number of exposures: daily
NOEL: >= 1000 mg/kg/d
Method: OECD Guideline 422
Information given is based on data obtained from similar substances.

Further information

Solvents may degrease the skin.

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

Ecotoxicity

Material -- Not expected to be harmful to aquatic organisms.
Material -- Not expected to demonstrate chronic toxicity to aquatic organisms.

Persistence and Degradability

Biodegradation:

Material -- Expected to be readily biodegradable.

Hydrolysis:

Material -- Transformation due to hydrolysis not expected to be significant.

Photolysis:

Material -- Transformation due to photolysis not expected to be significant.

Atmospheric Oxidation:

Material -- Expected to degrade rapidly in air

Other Ecological Information

VOC (EPA Method 24): 6.426 lbs/gal

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

Disposal Recommendations

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

Regulatory Disposal Information

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated, especially when mixed with surfactants (detergents) during application.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

Land (DOT)

Proper Shipping Name: PETROLEUM DISTILLATES, N.O.S.
Hazard Class & Division: COMBUSTIBLE LIQUID

ID Number: 1268
Packing Group: III
ERG Number: 128
Label(s): NONE
Transport Document Name: UN1268, PETROLEUM DISTILLATES, N.O.S., COMBUSTIBLE LIQUID, PG III

This material is not regulated under 49 CFR in a container of 119 gallon capacity or less when transported solely by land, as long as the material is not a hazardous waste, a marine pollutant, or specifically listed as a hazardous substance.

Land (TDG): Not Regulated for Land Transport

Sea (IMDG): Not Regulated for Sea Transport according to IMDG-Code

Marine Pollutant: No

Air (IATA): Not Regulated for Air Transport

SECTION 15 REGULATORY INFORMATION

National Legislation

SARA 311/312 Hazards:	Fire Hazard Acute Health Hazard.
CERCLA Reportable Quantity:	This material does not contain any components with a CERCLA RQ.
SARA 302 Reportable Quantity:	This material does not contain any components with a SARA 302 RQ.
SARA 302 Threshold Planning Quantity:	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 304 Reportable Quantity:	This material does not contain any components with a section 304 EHS RQ.
SARA 313 Ingredients:	SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

Ozone-Depletion Potential:	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

US State Regulations

Pennsylvania Right To Know:	No components are subject to the Pennsylvania Right to Know Act.
New Jersey Right To Know:	No components are subject to the New Jersey Right to Know Act.
California Prop. 65 Ingredients:	This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.
