

**Ecosolv® Dry Cleaning Fluid**

Version 1.5

Revision Date 2020-08-11

SECTION 1: Identification of the substance/mixture and of the company/undertaking**Product information**

Product Name : Ecosolv® Dry Cleaning Fluid
Material : 1061821, 1061242, 1079001, 1058748, 1058747, 1061171

Use : Solvent

Distributor: : Silver Fern Chemical, Inc.
121 W. De La Guerra Street, Suite B
Santa Barbara, CA 93101
Ph: 866-282-3384
Email: info@silverfernchemical.com
Website: www.silverfernchemical.com

24 Hour Emergency Telephone:
Infotrac 1-800-535-5053 (USA & Canada)
Outside USA & Canada 1-352-323-3500

Responsible Department : Product Safety and Toxicology Group
E-mail address : SDS@CPChem.com
Website : www.CPChem.com

SECTION 2: Hazards identification**Classification of the substance or mixture**

This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

Classification

: Flammable liquids, Category 4
Aspiration hazard, Category 1

Labeling

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

Symbol(s)

:



Signal Word

:

Danger

Hazard Statements

:

H227: Combustible liquid.

H304: May be fatal if swallowed and enters airways.

Precautionary Statements

:

Prevention:

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P331 Do NOT induce vomiting.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity:**IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3: Composition/information on ingredients

Synonyms

:

Isoalkanes
Aliphatic hydrocarbon
Isoparaffins

Molecular formula

:

Mixture

Component	CAS-No.	Weight %
C12-C14 Isoalkanes	68551-19-9	99.9

SECTION 4: First aid measures

General advice

:

Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.

If inhaled

:

If unconscious, place in recovery position and seek medical

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

advice. If symptoms persist, call a physician.

- In case of skin contact : If on skin, rinse well with water. If on clothes, remove clothes.
- In case of 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.
- If swallowed : Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5: Firefighting measures

- Flash point : 61.1°C (142.0°F)
Method: Tag closed cup
- Autoignition temperature : No data available
- Suitable extinguishing media : Carbon dioxide (CO2).
- Unsuitable extinguishing media : High volume water jet.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.
- Further information : For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
- 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.

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.

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

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 in a well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Use : Solvent

SECTION 8: Exposure controls/personal protection**Ingredients with workplace control parameters****Chevron Phillips Chemical Company LP**

Components	Basis	Value	Control parameters	Note
C12-C14 Isoalkanes	Manufacturer	TWA	1,200 mg/m3	RCP,

RCP Reciprocal Calculation Procedure

US

Components	Basis	Value	Control parameters	Note
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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 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. 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: 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

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

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 in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate:. Flame retardant protective 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
- Autoignition temperature : No data available
- Thermal decomposition : No data available
- Molecular formula : Mixture
- Molecular weight : Not applicable
- pH : 7
- Pour point : No data available
- Boiling point/boiling range : 189-208°C (372-406°F)
- Vapor pressure : 1.50 MMHG
at 38°C (100°F)
- Relative density : 0.76

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

at 15.6 °C (60.1 °F)

Water solubility	: Negligible
Partition coefficient: n-octanol/water	: No data available
Viscosity, kinematic	: 1.55 cSt at 38°C (100°F)
Relative vapor density	: 3 (Air = 1.0)
Evaporation rate	: 1
Percent volatile	: > 99 %

SECTION 10: Stability and reactivity

Reactivity : Stable under recommended storage conditions.

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

Possibility of hazardous reactions

Hazardous reactions : Hazardous reactions: Hazardous polymerization does not occur.

Hazardous reactions: Vapors may form explosive mixture with air.

Further information: No decomposition if stored and applied as directed.

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 : No data available

Hazardous decomposition products : Carbon Dioxide
Carbon oxides

Other data : No decomposition if stored and applied as directed.

SECTION 11: Toxicological information**Acute oral toxicity**

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

C12-C14 Isoalkanes : LD50: > 5,000 mg/kg
Species: Rat
Sex: male and female
Method: OECD Test Guideline 401
Information given is based on data obtained from similar substances.

Acute inhalation toxicity

C12-C14 Isoalkanes : LC50: > 5.3 mg/l
Exposure time: 4 h
Species: Rat
Sex: male and female
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.
Information given is based on data obtained from similar substances.

Acute dermal toxicity

C12-C14 Isoalkanes : LD50: > 2,000 mg/kg
Species: Rabbit
Sex: male and female
Method: OECD Test Guideline 402
Information given is based on data obtained from similar substances.

Skin irritation

C12-C14 Isoalkanes : No skin irritation
Information given is based on data obtained from similar substances.

Eye irritation

C12-C14 Isoalkanes : No eye irritation
Information given is based on data obtained from similar substances.

Sensitization

C12-C14 Isoalkanes : Did not cause sensitization on laboratory animals.
Information given is based on data obtained from similar substances.

Repeated dose toxicity

C12-C14 Isoalkanes : Species: Rat, male and female
Sex: male and female
Application Route: oral gavage
Dose: 500, 2500, 5000 mg/kg/d
Exposure time: 13 wk
Number of exposures: daily
NOEL: >= 5000 mg/kg/d
Method: OECD Test Guideline 408
No adverse effects expected
Information given is based on data obtained from similar

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

substances.

Species: Rat, male and female
 Sex: male and female
 Application Route: Dermal
 Dose: 165, 330, 495 mg/kg
 Exposure time: 13 wk
 Number of exposures: 5 d/wk
 NOEL: > 495 mg/kg/d
 Method: OECD Guideline 411
 No adverse effects expected
 Information given is based on data obtained from similar substances.

Species: Rat, male and female
 Sex: male and female
 Application Route: Inhalation
 Dose: 5, 10, 30 mg/L
 Exposure time: 90 d
 Number of exposures: 6 h/d
 NOEL: > 30 mg/l
 Method: OECD Test Guideline 413
 No adverse effects expected
 Information given is based on data obtained from similar substances.

Genotoxicity in vitro

C12-C14 Isoalkanes : Test Type: Ames test
 Metabolic activation: with and without metabolic activation
 Result: negative

Test Type: Mouse lymphoma assay
 Metabolic activation: with and without metabolic activation
 Result: negative

Test Type: Sister Chromatid Exchange Assay
 Metabolic activation: with and without metabolic activation
 Result: negative

Reproductive toxicity

C12-C14 Isoalkanes : Species: Rat
 Sex: male and female
 Application Route: oral gavage
 Dose: 50, 200, 750 mg/kg/bw/d
 Number of exposures: daily
 Test period: 70 d
 Method: OECD Test Guideline 416
 NOAEL Parent: >750 mg/kg/bw/d
 NOAEL F1: >750 mg/kg/bw/d
 No adverse effects expected
 Information given is based on data obtained from similar substances.

**Ecosolv® Dry Cleaning Fluid
 Aspiration toxicity**

: May be fatal if swallowed and enters airways.

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

CMR effects

C12-C14 Isoalkanes : Carcinogenicity: Not available
 Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects., In vivo tests did not show mutagenic effects
 Teratogenicity: Animal testing did not show any effects on fetal development.
 Reproductive toxicity: Animal testing did not show any effects on fertility.

Ecosolv® Dry Cleaning Fluid

Further information : Solvents may degrease the skin.

SECTION 12: Ecological information**Ecotoxicity effects**

Toxicity to fish : 1,000 mg/l
 Exposure time: 96 h
 Species: Salmo gairdneri (Rainbow trout)

Toxicity to daphnia and other aquatic invertebrates : 1,000 mg/l
 Exposure time: 48 h
 Species: Daphnia magna (Water flea)

Toxicity to algae

C12-C14 Isoalkanes : EL50: > 1,000 mg/l
 Exposure time: 72 h
 Species: Pseudokirchneriella subcapitata (green algae)
 Growth inhibition Method: OECD Test Guideline 201
 Information given is based on data obtained from similar substances.

Toxicity to fish (Chronic toxicity)

C12-C14 Isoalkanes : No data available:

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

C12-C14 Isoalkanes : No data available

Biodegradability : Expected to be biodegradable

Elimination information (persistence and degradability)

Bioaccumulation

C12-C14 Isoalkanes : The product may be accumulated in organisms.

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

Mobility

C12-C14 Isoalkanes : immobile

Results of PBT assessment

C12-C14 Isoalkanes : Non-classified PBT substance, Non-classified vPvB substance

Additional ecological information : No data available

Ecotoxicology Assessment**Short-term (acute) aquatic hazard**

C12-C14 Isoalkanes : This material is not expected to be harmful to aquatic organisms.

Long-term (chronic) aquatic hazard

C12-C14 Isoalkanes : This material is not expected to be harmful to aquatic organisms.

SECTION 13: Disposal considerations

The information in this SDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product : Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

Testing (ASTM D4206) has shown product does not sustain combustion.

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information**National legislation**

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Aspiration 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 : This material does not contain any components with a section 302 EHS TPQ.

SARA 304 Reportable Quantity : This material does not contain any components with a section 304 EHS RQ.

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

SARA 313 Components : 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 112 (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 SOCM 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.

Notification status

Europe REACH	:	A substance or substances in this product is not registered or notified to be registered. Importation or manufacture of this product is still permitted provided that it does not exceed the REACH minimum threshold quantity of the non-regulated substances.
Switzerland CH INV	:	On the inventory, or in compliance with the inventory
United States of America (USA) TSCA	:	On or in compliance with the active portion of the TSCA inventory
Canada DSL	:	All components of this product are on the Canadian DSL
Australia AICS	:	On the inventory, or in compliance with the inventory
New Zealand NZIoC	:	On the inventory, or in compliance with the inventory

Ecosolv® Dry Cleaning Fluid

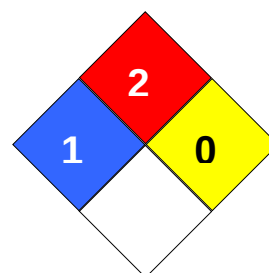
Version 1.5

Revision Date 2020-08-11

Japan ENCS	:	Notification number: HSR002649
Korea KECI	:	On the inventory, or in compliance with the inventory
	:	A substance(s) in this product was not registered, notified to be registered, or exempted from registration by CPChem according to K-REACH regulations. Importation or manufacture of this product is still permitted provided the Korean Importer of Record has themselves notified the substance.
Philippines PICCS	:	Not in compliance with the inventory
China IECSC	:	On the inventory, or in compliance with the inventory
Taiwan TCSI	:	On the inventory, or in compliance with the inventory

SECTION 16: Other information

NFPA Classification : Health Hazard: 1
Fire Hazard: 2
Reactivity Hazard: 0

**Further information**

Legacy SDS Number : 711230

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit

Ecosolv® Dry Cleaning Fluid

Version 1.5

Revision Date 2020-08-11

EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

Approved - TL 2-20-24