

SAFETY DATA SHEET

**ECOSOLV® Dry Cleaning Fluid**

Version 1.4

Revision Date 2014-12-15

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

Company : Chevron Phillips Chemical Company LP
 Specialty Chemicals
 10001 Six Pines Drive
 The Woodlands, TX 77380

Emergency telephone:**Health:**

866.442.9628 (North America)
 1.832.813.4984 (International)

Transport:

North America: CHEMTREC 800.424.9300 or 703.527.3887
 Asia: +800 CHEMCALL (+800 2436 2255) China: +86-21-22157316
 EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
 South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

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.

Emergency Overview**Danger**

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

OSHA Hazards : Combustible Liquid, Aspiration hazard

Classification

: Flammable liquids , Category 4
 Aspiration hazard , Category 1

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Labeling

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 or doctor/ physician.
P331 Do NOT induce vomiting.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
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.

ACGIH

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

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

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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 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. 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: 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.

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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.

SECTION 8: Exposure controls/personal protection**Ingredients with workplace control parameters**

Chevron Phillips Chemical Company LP

Ingredients	Basis	Value	Control parameters	Note
C12-C14 Isoalkanes	Manufacturer	TWA	1,200 mg/m ³	RCP.

RCP Reciprocal Calculation Procedure

US

Ingredients	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 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

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- 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
- Autoignition temperature : No data available
- Thermal decomposition : No data available
- Molecular formula : Mixture
- Molecular weight : Not applicable
- pH : 7
- pour point : No data available

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Boiling point/boiling range	: 189 - 208 °C (372 - 406 °F)
Vapor pressure	: 1.50 MMHG at 38 °C (100 °F)
Relative density	: 0.76, 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

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	: 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**

C12-C14 Isoalkanes : LD50: > 5000 milligram per kilogram
Species: rat
Method: OECD Test Guideline 401
Information given is based on data obtained from similar substances.

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Acute inhalation toxicity

C12-C14 Isoalkanes : LC50: > 5.3 milligram 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.

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

Repeated dose toxicity

C12-C14 Isoalkanes : 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.

Reproductive toxicity

C12-C14 Isoalkanes : 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.

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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: \geq 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: \geq 300 ppm
 NOAEL F1: \geq 300 ppm
 Information given is based on data obtained from similar substances.

Developmental Toxicity

C12-C14 Isoalkanes

: Species: rat
 Application Route: Inhalation
 Dose: 100, 300 ppm
 Exposure time: GD 6-15
 Number of exposures: 6 h/d
 NOAEL Teratogenicity: \geq 300 ppm
 Information given is based on data obtained from similar substances.

Species: rat
 Application Route: Inhalation
 Dose: 300, 900 ppm
 Exposure time: GD 6-15
 Number of exposures: 6 h/d
 Method: OECD Guideline 414
 NOAEL Teratogenicity: \geq 900 ppm
 NOAEL Maternal: \geq 900 ppm
 Information given is based on data obtained from similar substances.

Species: rat
 Application Route: oral gavage
 Dose: 0, 500, 1000, 1500 mg/kg/d
 Exposure time: GD 6-15
 Number of exposures: Daily
 Method: OECD Guideline 414
 NOAEL Teratogenicity: 1,000 mg/kg
 NOAEL Maternal: 500 mg/kg
 Information given is based on data obtained from similar substances.

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Aspiration toxicity : 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.

CMR effects

C12-C14 Isoalkanes : Carcinogenicity: Limited evidence of carcinogenicity in animal studies
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: No adverse effects expected

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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 : NOELR: 0.316 mg/l
Exposure time: 28 d
Species: Oncorhynchus mykiss (rainbow trout)
Method: QSAR modeled data

Elimination information (persistence and degradability)

Biodegradability : Expected to be biodegradable

Ecotoxicology Assessment

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Results of PBT assessment
 C12-C14 Isoalkanes : Non-classified PBT substance, Non-classified vPvB substance

Additional ecological information : No data available

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.

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.

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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 : 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).

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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 SOCM1 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.

Notification status

Europe REACH : On the inventory, or in compliance with the inventory

United States of America TSCA : On 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
Notification number: HSR002649

Japan ENCS : On the inventory, or in compliance with the inventory

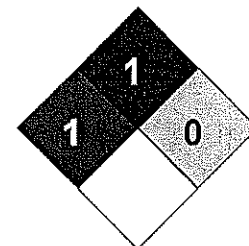
Korea KECI : On the inventory, or in compliance with the inventory

Philippines PICCS : Not in compliance with the inventory

China IECSC : On the inventory, or in compliance with the inventory

SECTION 16: Other information

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



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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 Material 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
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%		