



**EcoSolv<sup>®</sup> drycleaning fluid** is 100% hi-grade hydrocarbon-based, and its flash point lies within the standards for Class IIIA solvents (above 140 °F and below 200 °F). To the drycleaning industry, this means that the product can be used in a dry cleaning machine and processes designed for hydrocarbon or silicone solvent without changes to settings, procedures or processes.

Parrisianna are very aware of environmental issues involved with the drycleaning industry and we need to strive to be as "green" as possible. Parrisianna are the first dry cleaning supply companies to promote the use of EcoSolv drycleaning fluid logo in the UK. Unlike silicone solvent, No solvent use licence is required and the use of the Ecosolv logo in advertising, comes absolutely free

**EcoSolv<sup>®</sup> drycleaning fluid** is used world wide but under different names and logo. It has proven to be far more environmentally and operational acceptable than all other main line solvents. The technology involved in Ecosolv is hydrocarbon, so all known manufactured hydrocarbon detergents and propriety stain spotters are completely compatible in utilizing this solvent to be beneficial to our customers and community.

- EcoSolv Makes Whites Whiter and colours Brighter
- Ecosolv Cleans delicate classification fabrics
- EcoSolv Does not remove the Natural Products from Your Clothes
- EcoSolv Leaves Your Clothes Looking and Feeling New
- EcoSolv Leaves Virtually no Odor After Cleaning
- EcoSolv is Gentle to Accessories, Special Trims and Buttons
- EcoSolv is Environmentally Friendly - Producing only recyclable Waste.
- Ecosolv will Flush out Spot Treatments and emulsifying detergents.

The general public will be interested to know that Ecosolv cleaning fluid is reused, recycled, filtered and distilled to remove impurities. All waste by-products derived from this process to include detergents and spot removal products are collected by licensed waste recycling companies.

## **Environmental Standards**



Important features of EcoSolv drycleaning fluid include:

- The processing and drying time for EcoSolv<sup>®</sup> fluid is identical to that all other competing hydrocarbon solvents used in dry cleaning. Upon switching to EcoSolv drycleaning fluid, your garment processing time will remain the same and the cleaning with stain removal results identical.
- Ecosolv has degreasing properties that allow the use of proven emulsifiers and water carrying detergents that will produce much better cleaning and flushing out results automatically within the machine process than is possible with silicone dry cleaning fluid.
- EcoSolv<sup>®</sup> fluid mixes readily with all additives manufactured as suitable for hydrocarbon solvent drycleaning.
- EcoSolv<sup>®</sup> fluid is 100% biodegradable product.
- Dye and soil transfer during the drycleaning operation are minimised when EcoSolv<sup>®</sup> fluid is used with both anionic and cationic detergent formulations. This translates to cleaner garments for your customers.
- EcoSolv<sup>®</sup> drycleaning fluid is essentially odorless, reducing the need for any form of deodorising. Your customers will also appreciate how very soft, bright, clean and fresh their garments smell when you use EcoSolv fluid.

Parrisianne Dry Cleaning Solutions.



## Drycleaning

[EcoSolv® drycleaning solvent](#) is 100% hydrocarbon-based but unlike traditional hydrocarbons, it is a very high grade, its flash point lies within the NFPA standards for Class IIIA solvents (above 140 °F and below 200 °F). To the drycleaner, this means that with the proper permitting, this product can be used in cleaning processes currently using other hydrocarbon solvents.

The New York State Department of Environmental Conservation has approved EcoSolv® solvent under its NYSDEC Air Facility Registration program for dry-to-dry, totally enclosed machinery.

We recommend you read some articles about hydrocarbon drycleaning solvents that may help you learn more about why EcoSolv solvent is such a good choice for your business.

When compared to traditional hydrocarbon solvents, the higher flash point of EcoSolv® solvent translates to increased safety. Its lower vapor pressure means that you will lose less solvent to the environment, resulting in cost savings in your operation.

The cleaning power of Chevron Phillips Chemical's EcoSolv® solvent has been tested by a major detergent manufacturer.\* Their results show that switching from standard hydrocarbon solvents to EcoSolv fluidt will not change the cleaning performance of your system. Some important features of EcoSolv drycleaning solvent include:

- The drying time for EcoSolv® solvent is identical to that of other hydrocarbon solvents.
- EcoSolv® solvent mixes readily with allt drycleaning additives that are used with hydrocarbon drycleaning solvents.
- EcoSolv® solvent is 100% biodegradable.
- Dye and soil transfer during the drycleaning operation is minimized when EcoSolv® solvent is used with both anionic and cationic detergent formulations. This translates to cleaner garments for your customers.
- EcoSolv® drycleaning solvent is essentially odorless, reducing the need for deodorizers. Your customers will appreciate how clean and fresh their garments smell when you use EcoSolv solvent in place of other Stoddard solvents.

## FLAMMABILITY

There is a potential flammability hazard associated with hydrocarbon solvents. The *Fire Protection Guide to Hazardous Materials* of the National Fire Protection Association (NFPA) ranks chemicals on a scale of 0 through 4 for flammability. Materials ranked 0 will not burn, and those ranked 4 include flammable gases, pyrophoric liquids, and flammable liquids. All of the hydrocarbon solvents discussed here are ranked 2, meaning that they have a low flashpoint (that is, they must be moderately heated before ignition will occur) and that they give off ignitable vapors. Stoddard solvent is also considered ignitable based upon the standard outlined in EPA regulations (Protection of Environment, RCRA, Identification and Listing of Hazardous Waste, Characteristic of Ignitability). Under this standard, a chemical is considered ignitable if it "is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has a flash point less than 60°C." DF-2000 and 140°F solvent are considered to have a non-ignitable ranking.

Although fire potential is a commonly recognised hazard of hydrocarbon solvents, data are not available to assess the potential for the hydrocarbon solvents to ignite and cause a fire (Ahrens, 1998).

The potential risk to the environment from hydrocarbon solvents is estimated to be low. The projected releases of hydrocarbon solvents to surface water are very small. The resulting concentration of hydrocarbon solvents in surface water is also small and is not expected to exceed the toxicity concern concentrations for aquatic organisms. Thus, there is a low risk of toxicity to aquatic species

# Hydrocarbon Drycleaning Solvents

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High purity, low odor solvent  
for drycleaning



# Solvent Characteristics

- ◆ Available in high flash and low flash varieties:
  - ◆ High Flash: flash exceeds 140 °F
    - ◆ meets Class III A requirements
  - ◆ Low Flash: flash exceeds 100 °F
    - ◆ meets Class II requirements
    - ◆ quick drying

- ◆ Hydrocarbon solvents are safe for fabrics:
  - ◆ dye and soil transfer minimized
  - ◆ odorless so need for deodorizers reduced
  - ◆ residual solvent in shoulder pads and cuffs will dry at room temperature - some other solvents are not volatile enough to ever dry at room temperature

- ◆ Hydrocarbon solvents are safe for employees
  - ◆ low vapor pressure relative to perc = less solvent inhalation
  - ◆ studies on rats reveal:
    - ◆ no subchronic toxicity
    - ◆ no damage or death to fetuses
    - ◆ not carcinogenic

- ◆ Most hydrocarbon drycleaning solvents are isoparaffins
- ◆ Isoparaffins are also used in:
  - ◆ waterless hand cleaner and cosmetics
  - ◆ food processing plants as direct additives to food (e.g., sugar, wine, vinegar manufacture, cleaning vegetables)

- ◆ Hydrocarbon solvents are safe for the environment
  - ◆ normal paraffins are known to biodegrade up to 70% over 28 days
  - ◆ isoparaffins are believed to biodegrade at a similar rate
  - ◆ lower vapor pressure than perc means less solvent evaporates into environment

# Cost to Use Hydrocarbons

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- ◆ Waste carriers have handled hydrocarbons for years and have developed methods to handle hydrocarbon waste (filters, Still waste, & Spent solvent)

# Maximizing Performance

- ◆ Expect to easily clean 50 Kg clothes per litre of solvent
- ◆ Carbon cartridges should be changed after 150 Loads of cleaning
- ◆ Use detergents and additives that have been formulated for hydrocarbon solvents

- ◆ Odors in solvents are caused primarily by bacteria
  - ◆ bacteria thrive where water is present
  - ◆ clean water separator often
  - ◆ use EM detergents containing Effective Microorganisms formulation

# Our Hydrocarbons

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- ◆ EcoSolv® drycleaning fluid
  - ◆ Class III A, isoparaffin fluid
  - ◆ Can be mixed with other isoparaffin drycleaning solvents (e.g., DryClean56) with no need to drain machine
  
- ◆ HC-DCF™ Low Flash drycleaning fluid
  - ◆ Class II, isoparaffin fluid
  - ◆ Used primarily in transfer machines.

# Summary

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- ◆ Hydrocarbon solvents meet NFPA requirements for Class II and Class III A facilities
- ◆ Hydrocarbons are safe, effective, and low-cost alternatives to other solvent systems