

Solvents for organic trace analysis



## Detection, Identification, Quantification

# are the analyst's challenges without forgetting rapidity

With the development of advanced analytical techniques, trace analysis has been a major challenge for analytical chemists.

Analytical chemistry involves the separation, identification, and quantification of target compounds in complex samples. Modern chromatographic techniques have an excellent separation power. They are versatile and allow the use of a variety of detection techniques. However, due to the increasing requirements of environmental and toxicological regulations, the current detection limits cannot meet

all needs; therefore, sample enrichment by extraction-concentration technique is frequently required before introduction samples into the chromatographic system. As a result, high purity solvents are needed in the extraction-concentration technique for the analysis of residues, pesticides and other general trace organic contaminants in water, soil, food, etc.



## Purification, Analysis, Reproductibility

state-of-the-art when you produce high purity solvents

#### Purification

## Chemistry is the expertise of Biosolve.

More than 10 years ago, Biosolve introduced to the market ULC/MS solvents. We keep our chemical plant and machinery up to date

through state-of-the-art technology. That is why we are able to improve regularly the specifications of our products.

Our production site in France (57 Dieuze) is certified ISO 9001: 2008.

## **Analysis** (control - specification)

From the initial approval of selected raw materials through in process control to the final packed product, all the steps are perfectly documented, to ensure a high quality of production with lot-to-lot reproducibility and complete traceability.

Chemical and physical analyses are performed according to written procedures using modern equipment properly maintained and calibrated as per ISO procedures.

Adequate parameters are chosen for each category of products regarding their application.

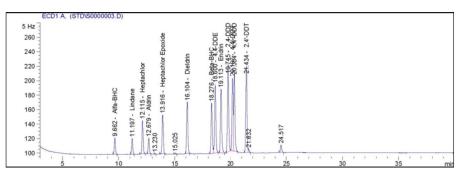
These methods are used to control our raw materials, in-process and finish products regularly.

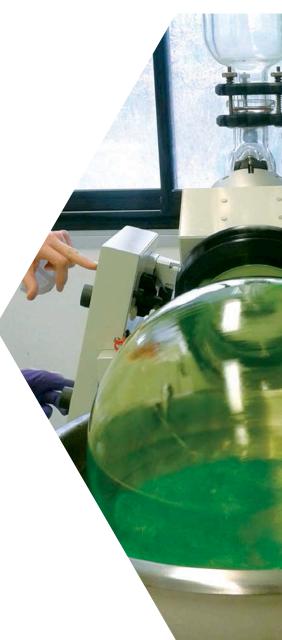
- HPLC with detection: MS, ELSD, DAD, PDA, UV
- GC with detection: MS, FID, ECD, NPD, Headspace
- And some others: IR, MS, NMR, UV-VIS, Fluorescence, ICP

## **Reproductibility**

High reproducibility from batch to batch. We are constantly adjusting our specifications and offer several grades according to the solvent and its use.

All solvents are filtered through 0.2 µm and packed under inert gas. Manufacturing and recommended expiry dates are clearly stated on the labels and COA.







# From classical to ultimate trace analysis

Different grades conforming your needs

## **Pesti-S**

**Our classical solvents** suitable for analysis of common pesticides and residues analysis, NPD and ECD tested.

Each batch is tested following 1000:1 concentration.

GC/ECD any pesticide (as lindane)	max. 5 ng/l
GC/NPD any pesticide (as Parathion)	max. 10 ng/l

## Dioxins, Pesti-S, Furans and PCB's

**Solvents suitable for all analysis of 209 PCB range**, from 2-PCB to deca-PCB, including TCDD isomers, (mainly 2,3,7,8-TCDD), furans and dioxins.

Each batch is tested following 1000:1 concentration.

GC/ECD Dioxins, furans & PCB's	max. 5 ng/l
GC/ECD any pesticide (as lindane)	max. 5 ng/l
GC/NPD any pesticide (as Parathion)	max. 10 ng/l

## **LV/GC** - Large Volume GC solvents

For ultimate organic trace analysis, checked at ppt level of PAH, furans & PCB's. Pesticides and other residual organic contaminants, low level of C10-C40 hydrocarbons for mineral oil analysis, suitable for analysis with GC-FID, -MS, -NPD, -ECD etc.

Each batch is tested following 1000:1 concentration.





6

## Products list

A complete range of solvents for environmental analysis, highly purified and finally distilled in all glass systems to ultra low residue level.

n-Hexane 99%
n-Hexane 96%
Isohexane
Methanol
iso-Octane
n-Pentane 99%
n-Pentane 96%
Petroleumether 30-60
Petroleumether 40-60
1-Propanol
2-Propanol
Tetrahydrofuran
Toluene
1,1,2-Trichloroethane
Water

Determination of volatile organic compounds in water and soils:

« Purge and Trap » method Methanol Purge & Trap 136828.



## **Custom made products**

We offer various solvent mixtures for analysis.
Please inquire.

For exemple:

- Dichloromethane + Hexane
- Ethyl acetate + Toluene

Density and % of each compound are stated on the specifications.



#### **Shuttle drums**

All solvents: Pesti-S, Dioxins, Pesti-S, Furans and PCB's, and LV-GC can be delivered as per customer's requirements in 5 or 25 lit. drums

Ask us



### **ULC/MS** solvents

High chemical purity by GC analysis >99.99%



## Headspace

A range of high boiling point solvents, such as **DMA, DMI, DMSO, NMP,** specially developed for Headspace analysis of organic volatile impurities. Biosolve Hydroquant™ product line covers the whole range of volumetric and coulometric reagents for the determination of water by Karl-Fischer method.





#### **BIOSOLVE BV**

Leenderweg 78; 5555 CE Valkenswaard, the Netherlands Tel. (+31) 40 2071300 Fax (+31) 40 2048537

biosolve-chemicals.com

#### **BIOSOLVE CHIMIE**

20, Rue Roger Husson F-57260 Dieuze Tel. (+33) 3 87 86 75 80 Fax (+33) 3 87 86 75 89

info@biosolve-chimie.com

#### **BIOSOLVE INDIA**

B 904 Prayag Residency Behind Grand Bhagwati Bodakdev Ahmedabad 380015 Tel. (+91) 9879206494

soumitra@ biosolve-chemicals.com

