

HYPERSOL MACRONET™

Purolite Adsorbent technology - Installation saves \$170K in year one and is a proven success as a totally regenerable adsorbent for removal of chlorinated solvents from waste water streams.

Introduction

Following a three stage development process, Purolite's **HYPERSOL MACRONET™** Technology is a proven success in the removal of chlorinated solvent from waste waters in a pharmaceutical manufacturing process.

The early development work carried out in co-operation with **Guzina** identified a number of strong technical advantages in utilising the properties of the **MACRONET** technology:

- **MACRONET** could comfortably accommodate chloroform concentrations in the water as high as 350 ppm
- **MACRONET** has a very high retention of chlorinated solvent species - up to 100g of chloroform per litre of resin.
- Possible to steam strip at temperatures as low as 100° C with low pressure steam.
- Little or no reduction in adsorption capacity following repeated steam stripping cycles.
- Easily achieved compliance with emissions standards for chlorinated solvents.

Project Work

The project work resulted in the construction of a turnkey industrial scale installation (see picture opposite) comprising of the following :

1. Three adsorption columns of 2.2m diameter working in carousel (two in series and one in regeneration).
2. Stripper column for regeneration of **MACRONET** and recovery of chloroform.
3. Scrubbing system to reduce solvent emissions to atmosphere.



All the equipment is made of polypropylene or titanium alloys, depending upon operating temperature, and/or the corrosive nature of the effluent.

Project Benefits

1. All chloroform is removed from the plant waste water.
2. Chloroform is recovered, cleaned and re-used in the process.
3. The **MACRONET** technology is clean, does not produce fines and is totally regenerable.
4. The **Guzina** unit has produced cost savings in the order of 170K USD in the first year of operation both in chloroform savings and waste management costs.
5. No environmental incidents have occurred and the unit has passed all environmental authority inspections.

For further information please contact:

USA

Telephone: (1) 610-668-9090

Fax: (1) 610-668-8139

Email: purobala@cwixmail.com

United Kingdom

Telephone: (44) 181-570-4454

Fax: (44) 181-572-7726

Email: purolite.london@dial.pipex.com

Germany

Telephone: (49) 2102-46033

Fax: (49) 2102-443663

Email: purolited@aol.com

France

Telephone: (33) 1-42-564563

Fax: (33) 1-45-633826

Email: purolite@wanadoo.fr

Italy

Telephone: (39) 02-481-8145

Fax: (39) 02-4801-2359

Email: purolitecomm@galactica.it