



LIQUID/LIQUID EXTRACTION QUESTIONNAIRE

A - GENERALITES

1) CLIENT OR PROJECT IDENTIFICATION

COMPANY: **TELEPHONE**

ADDRESS: **FAX:**

..... **E-mail :**

Name of person responsible for project

Written by :

Evaluated by :

2) Please attach a process flow diagram with this questionnaire

A liquid/liquid extraction process may involve several operations (Extraction, washing (scrub), one or several selective back-extractions, solvent regeneration).

Please fill out questions B-E for each extraction operation, if possible.

Attach a flow diagram for each operation.

B - TYPE OF OPERATION

OPERATION : Continuous batch

NUMBER OF OPERATING HOURS PER DAY :

MAXIMUM TIME ALLOWED TO TREAT A BATCH :

C - PHASE CHARACTERISTICS

1) PHASE TO BE EXTRACTED

• FLOWRATE: m³/h (kg/h) or batch : m³

• COMPOSITION :
• Solute to be extracted :
Concentration :

• Other components (acids, other solutes) :

Concentration :

• Solids in suspension : yes no

Solids content :

Are they soluble in either phase? yes no



Can they be separated :

by filtration

by centrifugal decantation

• SPECIFIC GRAVITY : kg/m³

• VISCOSITY : cps at °C or °F

• TEMPERATURE : °C or °F

2) SOLVENT

• PHASE RATIO : m³ solvent / m³ phase to be extracted

• FLOWRATE : m³/hr

• COMPOSITION

• Principle components :

Concentrations :

• Solids in suspension : yes no

Solids Content :

Are they soluble in either phase ? yes no

Can they be separated :

by Filtration

by Centrifugal Decantation

• SPECIFIC GRAVITY : kg/m³

• VISCOSITY : cps at °C or °F

• TEMPERATURE : °C or °F

3) RAFFINATE (discharged feed which contains a small amount of solute)

• FLOWRATE : m³/hr or batch : m³

• COMPOSITION

• Solute to be extracted :

Concentration :

• Other components (acids, other solutes.....) :

Concentrations :

• SPECIFIC GRAVITY : kg/m³

• VISCOSITY : cps at °C or °F



4) EXTRACT (Loaded solvent phase)

- FLOWRATE : m³/hr or batch : m³
- COMPOSITION
 - Solute to be extracted :
 - Concentration :
 - Other components (acids, other solutes....) :
 - Concentrations :
- SPECIFIC GRAVITY : kg/m³
- VISCOSITY : cps at °C or °F

D - EXISTING PROCESS CONDITIONS AND FEATURES

1) KINETICS

- CONTACT TIME of the two phases to achieve equilibrium solute concentrations in the two phases
- When the two phases are vigorously mixed together, how long does it take for the two phases to separate
By gravity ?
- By centrifugation ? Centrifugation conditions :

2) TEMPERATURE

- OPTIMUM operating temperature : °C or °F

3) FORMATION OF PRECIPITATE

- Can a precipitate form when the phases are put into contact ? yes no

4) DISTRIBUTION COEFFICIENT – ISOTHERMAL CURVE

- DISTRIBUTION COEFFICIENT of the solute between the two phases:
- ISOTHERMAL DISTRIBUTION CURVE – MCCABE THIELE CONSTRUCTION
Have they been graphed ? yes no
Please attach with this questionnaire .
- NUMBER OF THEORETICAL STAGES based on desired result :

5) PRIOR INDUSTRIAL OR PILOT SCALE TESTING

- Has an industrial or pilot scale study already been performed ? yes no
- Please attach relevant information and results with this questionnaire.



E - INSTALLATION

1) MATERIALS

MATERIALS OF CONSTRUCTION for components in contact with process :

- METALS: (Stainless Steel, Alloys, other Metals)

316 L HASTELLOY C OU B TITANIUM 304 L

- PLASTICS POLYPROPYLENE POLYETHYLENE PVDF (KYNAR)

- OTHER MATERIALS(PLEASE SPECIFY) :

- SEALS, O-RINGS, LIP SEALS :

2) INSTALLATION

- THE EXTRACTOR WILL BE INSTALLED IN A HAZARDOUS AREA oui non

SEND THIS QUESTIONNAIRE BY FAX OR MAIL TO :

ROUSSELET CENTRIFUGATION SA

Head office :

ROUSSELET CENTRIFUGATION SA

GREAT BRITAIN

ROUSSELET / ROBATEL U.K Ltd

GERMANY

ROUSSELET CENTRIFUGATION

USA

ROBATEL Inc.



Av. Rhin et Danube
PAE de Marenton
07104 ANNONAY - FRANCE

Parkside House, 17 East Parade
HARROGATE
NORTH YORKSHIRE HG 1 5LF

Im Forstgarten 5A
D-66459 KIRKEL/SAAR

703 West Housatonic Street
PITTSFIELD
MA 01201



+33 (0) 4 75 69 22 11

+44 (0) 1 423 530 093

+49 (0) 6849 60 99 56

+1 413 499 4818



+33 (0) 4 75 67 69 80

+44 (0) 1 423 530 120

+49 (0) 6849 60 99 57

+1 413 499 5648

E-mail rousselet.sa@rousselet.com

sales@rousselet-robatel.co.uk

rousselet@t-online.de

sales@robatel.com

Web : www.rousselet.com - www.rousselet-robatel.com