



NORTH CHICAGO, IL

LABORATORY SERVICES PROFILE

2.10.2010

Staff: Technical Director, Quality Director/Process Manager, Quality Specialist, Quality Control Laboratory Manager, MSDS Coordinator, Administrative Assistant, 10 degreed Quality Control Chemists

Equipment:

- 2 FTIR
- 5 TCD/packed column Gas Chromatographs
- 2 FID/capillary column Gas Chromatographs
- 3 Ovens for non-volatiles
- 2 HR73 Moisture Analyzers for non-volatiles
- Accumet pH meter
- Fisher Sensiomat Surface Tension
- Mettler & Sartorius scales with 0.0001 g accuracy
- Brookfield viscometers, RVT & LVT
- Ford, ISO, Zahn viscometer cups
- APHA / Pt-Co & Gardner color equipment
- Karl Fischer / Aquatester
- COD Reactor
- Rapid Flashpoint Tester
- 2 Distillation Columns
- Fisher Sonicator
- Refractometer
- DE45 Density Meter
- DL53 Automated Titrator
- T70 Automated Titrator
- Turbitimeter
- Genesys 10 UV Spectrophotometer
- 3 VWR water baths
- Sindie XOS sulfur tester
- Lawler Automated CFPP, CP, PP
- Spraybooth
- Wide array of wet lab capabilities

- Records:** All raw materials, pre-mixed solvent blends, in-process tank blends, and finished goods are assigned unique & traceable lot numbers. Incoming, in-process, & in-line inspection records can be held up to 5 years.
- Resources:** A Refinish raw materials reference library has been established as well as strong technical support from major isocyanate manufacturers.
- Methods:** All customer requirements and test methods are controlled & referenced for chemists in a customer procedure manual.
- Formula Control:** Customer formulas are controlled in a protected database. Bench manuals and blend status sheets do not display formulas in order to maintain intellectual property confidentiality.

General Testing Guidelines for Refinish / OEM Products

Inspection of Solvents includes but is not limited to:

Appearance	Specific Gravity	Distillation range
Odor	GC purity	Verification of Mfr C/A
Color	% Water	Sulfur

Solvent retains can be held up to 2 years

Inspection of Isocyanate Resins includes but is not limited to:

Appearance	Specific Gravity	% NCO
Color	% Solids	Verification of Mfr C/A
Turbidity		

Resin retains can be held up to 2 years.

In-process Inspection of Isocyanate Blends includes but is not limited to:

Appearance	% Solids
Color	% NCO
Specific Gravity	Potlife & gel testing (applicable for blends containing tin complexes)
Turbidity	

Blend retains can be held up to 4 years.

Additional Testing:

All urethane grade solvents that are held in our dedicated, nitrogen purged tanks are analyzed each week for purity and water content.

Specification Controls:

Specifications & inspection packets referred to as Production Packets are generated for every packaging order. These packets include but are not limited to bill of materials, labeling diagrams, special handling & safety instructions, palletization requirements, weight & appearance specifications, and required inspection forms.

Label Controls:

Labels are controlled and issued by QA personnel based on EMCO's Production Packet requirements.