

Our products are manufactured according to fixed processes which efficiency is measured by indicators.

The same manufacturing process is used each time for each product, giving a batch which is the result of:

- * A reagent (raw materials) preparation process in preparation tanks,
- * A chemical reaction in polymerisation reactors,
- * A succession of finishing operations such as drying, distillation, evaporation, etc (depending on the type of product).

For each manufacturing batch, a representative sample is taken and sent to the quality control laboratories.

SNF carries out a 100% routine check on all finished products. All the batches produced are consequently checked systematically in our analysis laboratories; we do not use any statistical methods which would result in random sampling with the consequent risks of delivering products that do not comply.

This systematic quality check is carried out:

- * By trained laboratory staff approved for their specific work posts,
- * According to SNF analysis methods (procedures referenced with a QC n°) and to routine specifications for each product.

The SNF analytical methods can be consulted by customers on simple request.

The product is totally defined by the specifications which constitute a contractual warranty concerning the quality of the delivered product. They can be consulted by customers on simple request.

Product samples analysed are archived at least for the lifetime of the product. All the analysis results obtained are recorded on tracking sheets (electronic media) and archived.

The archived samples and analysis results obtained can be supplied to the customer following a specific request (notably in the event of a complaint concerning the quality of the delivered product).

All this data can also be checked directly on the spot at Andrézieux by means of customer audits.

On the basis of a comparison between the analysis results obtained and the routine check specifications, the laboratory staff decide directly whether the analysed product is:

- * Compliant (C): in which case the product is shipped or stocked,
- * Non-compliant (NC): the product is immediately identified using a coloured label and isolated in the storage premises to avoid it being used or delivered by mistake.

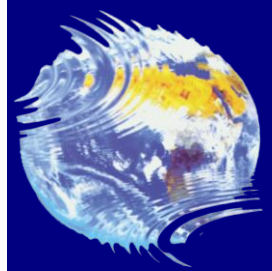
With our identification and traceability system it is thus possible to know at any time whether the finished product is in compliance or not.



SNF FLOERGER		PROCEDURE		N° : QC-1001 A
		FREE ACRYLAMIDE CONTENT ON EMULSIONS		Rev : 10
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Issue	Application date	Issued by	Controlled by	Approved by
10	24/05/05	M. Heurt	Ph. Lucassin	R. Hund
Objectifs : <u>100%</u> regular acrylamide monocation Analysis of free acrylamide content.				
The free acrylamide content on emulsion is determined: - Or by liquid chromatography, - Or by gas chromatography.				
A- LIQUID CHROMATOGRAPHY				
A1- PRINCIPLE				
Unreacted acrylamide in polymer is extracted from the sample with a mixture of solvents and water. The solution is then analysed by liquid chromatography for the determination of the acrylamide content. Peaks are identified by retention time. Concentrations are calculated from peak area measurements using ratio and proportion with an external standard.				
A2- APPARATUS				
- Liquid chromatograph equipped with a variable wavelength detector and an integration system (Millennium of WATERS for example). - or ECONOSIL C18 (Alltech) length: 25 cm ID: 4,6 mm Particulate size: 10 µm - or ATLANTIS DC 18 (Waters) column length: 150 mm ID: 4,6 mm Particulate size: 3 µm				
A3- REAGENTS				
- Acrylamide, - HPLC quality water, - HPLC quality methanol, - Acetic acid, ethanol or isopropanol, - NaH ₂ PO ₄ buffer 50 m Mill of pH = 3.75.				

SPECIFICATION PROPOSAL

PRODUCT NAME :		AN 534	
GENERIC NAME :		Copolymer of acrylamide and sodium acrylate	
PRODUCT DESCRIPTION :		White to off free flowing powder	
	UNITS	SPECIFICATION	QC TEST
DRY CONTENT	%	87,0-100,0	QC-100A
RESIDUAL MONOMER	ppm	0-999	QC-200A
INSOLUBLES	%	0,00-3,50	QC-151A
UL VISCOSITY	cps	5,00-5,70	QC-400A
SOLUTION APPEARANCE		slightly hazy appearance	
SNF APPROBATION		CUSTOMER APPROBATION	
VERSION :	2	CUSTOMER NAME :	
DATE :	17/05/1999	DATE :	
CONTROLLED BY : F. CHARTOIRE		RESPONSIBLE NAME :	
RESPONSIBLE : R. HUND			



Finished product quality control