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CATALOGADO

CUARTO INFORME DE AVANCE

"TECNOLOGIAS E INVERSIONES EN

LA INDUSTRIA PETROQUIMICA"

Expte. Nº 7292

CONSEJO NACIONAL DE INVERSIONES
BIBLIOTECA

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CUARTO INFORME DE AVANCE

Esta etapa del estudio se ha dedicado por una parte a la continuación en la búsqueda de información relacionada con los procesos tecnológicos de elaboración de los productos seleccionados, iniciándose por otra parte, un análisis exhaustivo de toda la información obtenida.

En el cuadro adjunto, que resume el estado de avance de la búsqueda de información, se puede apreciar que los datos recopilados completan casi totalmente la información referente a la mayoría de los productos en estudio, salvo en el caso del proceso de obtención de ácido adípico a partir de butadieno.

Cabe acotar que el volumen que el volumen de información obtenido en esta etapa excede con creces, en todos los casos, la necesaria para la realización del presente estudio, lo que ha obligado a un gran esfuerzo de selección y análisis de la misma con vistas a la elaboración del informe final. Asímismo, la casi totalidad de la literatura recopilada, cuya lista se incluye adjunta al presente informe, ha sido editada en idioma inglés, lo que agrega también la necesidad de traducción de la misma, previa a su inclusión en el informe final.

En forma complementaria se han realizado estrevistas a varias empresas relacionadas de alguna manera con la elaboración de los productos en estudio. Se ha tratado de obtener de este modo, no sólo información sobre los procesos y datos económicos de los mismos, sino también la opinión de los expertos en cada tema, sobre las capacidades de plantas a instalar y las ventajas e inconvenientes de los distintos procesos.

La nómina de empresas entrevistadas es la siguiente:

Ipako S.A.

Duperial S.A.

Petroquímica General Mosconi SAM

Ducilo S.A.

Hisisa S.A.

Prosintex S.A.

BASF Argentina S.A.

Indoquim S.A.

Monsanto Argentina S.A.

Química Hoechst S.A.

No se ha recibido, hasta el momento, la información solicitada sobre el proceso de UOP para la obtención de propileno por deshidrogenación catalítica de propano, sin embargo, se ha conseguido información completa de un proceso similar perteneciente a Houdry Catadiene. La ventaja de este último proceso reside en que asegura un 99% de conversión del propano en propileno, en tanto que el proceso de UOP sólo alcanza el 77%.

Como consecuencia de la dificultad inicial observada en la búsqueda de información en el país, relacionada con los procesos tecnológicos para la producción de tensioactivos no iónicos, se recurrió directamente a las principales empresas extranjeras proveedoras de tecnología.

Se adjunta copia de las notas enviadas, como así también las respuestas que se recibieron hasta la fecha.

A pesar de no obtener aún contestación, empresarios locales suministraron información de estos procesos, la cual se detalla en el

anexo bibliográfico. La misma está en estapa de análisis.

Además, se solicitó a empresarios de BASF Argentina, mayores detalles sobre el proceso tecnológico que desarrollaron para la producción de ácido adípico a partir de butadieno. En la oportunidad quedó establecido el compromiso de transferir esta solicitud a BASF Alemania.

Salvo estas dificultades en la búsqueda de información, se puede inferir del anexo bibliográfico que se adjunta, que hasta el momento se cuenta con un extenso material para la mayoría de los productos objeto de análisis, el cual sigue siendo procesado a efectos de los requerimientos del estudio.

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ESTADO DE AVANCE DE LA BUSQUEDA DE INFORMACION

PRODUCTO / INFORMACION	ETILENO		PEAD		ACETATO VINILO	OXIDO ETILENO		ETILENGLICOL			FIBRAS POLIESTER	
.Procesos	x		x		x	x		x			x	
.Flow-sheets	x		x		x	x		x			x	
.Descripción	x		x		x	x		x			x	
.Tecnologías	x		x		x	x		x			x	
.Comparación	x		x		x	x		x			x	
INVERSIONES	Proceso Steam Cracking Etano + Propano	Etano	Proceso Ziegler Partícula			Proceso Oxidación Aire	O2	Proceso Ox.Etileno Carb.	Hidr.	Etileno	Proceso DMT	TPA
Capacidad 1	x	x	x	x	x	x	x	x	x	x	x	x
2	x	x	x	x	x	x	x	x	x	x	x	x
3	x		x	x	x	x	x	x	x	x	x	x
CONSUMOS ESPECIFICOS												
Materias Primas	x	x	x	x	x	x	x	x	x	x	x	x
Servicios	x	x	x	x	x	x	x	x	x	x	x	x
COSTOS DE PRODUCCION	x	x	x	x	x	x	x	x	x	x	x	x
INVERSIONES AUXILIARES	-		-		-	-		-			-	
TAMAÑO MINIMO ECONOMICO	x		x		x	x		x			x	

[x] Información obtenida [-] El proceso no demanda esta información [ ] Enetapa de búsqueda

ESTADO DE AVANCE DE LA BUSQUEDA DE INFORMACION (hoja 2)

PRODUCTO / INFORMACION	TENSIOACTIVOS NO IONICOS	PROPILENO		OXIDO PROPILENO			PROPILENGLICOL	ACRILONITRILO	FIBRAS ACRILICAS
.Procesos	x	x		x			x	x	x
.Flow-sheets	x	x		x			x	x	x
.Descripción	x	x		x			x	x	x
.Tecnologías	x	x		x			x	x	x
.Comparación	x	x		x			x	x	x
INVERSIONES		Proceso		Proceso					
		Crack.	Desh. Catalit.	Oxid.	Clorh.	Eléct.			
Capacidad 1	x	x	x	x	x	x	x	x	
2	x	x	x	x	x	x	x	x	
3		x	x	x	x	x	x	x	
CONSUMOS ESPECIFICOS									
Materias Primas	x	x	x	x	x	x	x	x	x
Servicios	x	x	x	x	x	x	x	x	
COSTOS DE PRODUCCION	x		x	x	x	x	x	x	
INVERSIONES AUXILIARES	-	-		—			-	-	-
TAMAÑO MINIMO ECONOMICO	x	x		x			x	x	x

[x] Información obtenida [-] El proceso no demanda información [ ] En etapa de búsqueda

ESTADO DE AVANCE DE LA BUSQUEDA DE INFORMACION (hoja 3)

PRODUCTO / INFORMACION	2 ETIL HEXANOL	n-ISOBUTI-RALDEHIDO	BUTADIENO	CAUCHO POLIBUTADIENO	HEXAMETILEN-DIAMINA		ACIDO ADIPICO	POLIAMIDA 66
.Procesos	x	x	x	x	x		x	x
.Flow-sheets	x	x	x	x	x			x
.Descripción	x	x	x	x	x			x
.Tecnologías	x	x	x	x	x			x
.Comparación	x	x	x	x	x			x
INVERSIONES			Proceso Des. Catal.		Proceso Butadieno	Proceso Acrilo nitrilo	Proceso Butadieno	
Capacidad 1	x	x	x	x	x	x		x
2	x	x	x	x	x	x		x
3	x	x	x	x	x	x		x
ONSUMOS ESPECIFICOS								
Materias Primas	x	x	x	x	x	x	x	x
Servicios	x	x	x	x	x	x		x
OSTOS DE PRODUCCION	x	x	x	x	x	x		x
NVERSIONES AUXILIARES	x	x		-	-	-		-
TAMAÑO MINIMO ECONOMICO	x	x	x	x	x		x	x

[x] Información obtenida [-] El proceso no demanda esta información [ ] En etapa de búsqueda

BUENOS AIRES, December 10, 1980

Mr. Technical Manager
UOP Inc.
TEN UOP Plaza
Algonquin and M.T. Prospect Roads
Des Plains, Illinois 60016
U S A

Dear Sir,

We have recently noticed in the Oil and Gas Journal of November 10, 1980 that you have developed a new technology to produce propylene and butylene by catalytic dehydrogenation.

As we are interested on the subject we should very much appreciate you sending us further information on the process specially with regard to typical specific consumptions and rough figures of investment for a 150,000 MT/year propylene plant and also a 50,000 MT/year n-butene plant.

We look forward to an early reply.

Sincerely yours,

Dra. Nilda Di Nápoli
Directora

NDN/jr.

BUENOS AIRES, December 11, 1980

Mr. Technical Manager
AKSONA INCORPORATED
Northwestern Bank Building
Asheville, North Carolina 28802
U. S. A.

Dear Sir,

We should like to know if you have available technology to produce ethoxylated surface-active agents. In such a case we should very much appreciate your sending us complete information on the process.

We should also like to know typical specific consumptions and rough figures of investment for a 30,000 MT/year plant.

We look forward to your early reply.

Sincerely yours,

Dra. Nilda Di Nápoli
Directora

NDN/jr.

BUENOS AIRES, December 11, 1980

Mr. Proctor Avon
Manager of Licensig
MONSANTO INDUSTRIAL CHEMICAL Co
800 North Lindbergh Blvd.
St. Louis, MO 63166
U. S. A.

Dear Sir,

We are writing to you by suggestion of Mr. Robert A. Craig, vice president of our firm.

We should like to know if you have available technology to produce ethoxylated surface-active agents. In such a case we should very much appreciate your sending us complete information on the process.

We should also like to know typical specific consumptions and rough figures of investment for a 30,000 MT/year plant.

We look forward to your early reply.

Sincerely yours,

Dra. Nilda Di Nápoli
Directora

NDN/jr.

BUENOS AIRES, December 11, 1980

Mr. Technical Manager
SHELL CHEMICAL COMPANY
One Shell Plaza
P.O. Box 2463
Houston, Texas 77001
U. S. A.

Dear Sir,

We should like to know if you have available technology to produce ethoxylated surface-active agents. In such a case we should very much appreciate your sending us complete information on the process.

We should also like to know typical specific consumptions and rough figures of investment for a 30,000 MT/year plant.

We look forward to your early reply.

Sincerely yours,

Dra. Nilda Di Nápoli
Directora

NDN/jr.

BUENOS AIRES, December 11, 1980

Mr. Technical Manager
LEVER BROTHERS COMPANY
390 Park Avenue
New York, New York 10022
U. S. A.

Dear Sir,

We should like to know if you have available technology to produce ethoxylated surface-active agents. In such a case we should very much appreciate your sending us complete information on the process.

We should also like to know typical specific consumptions and rough figures of investment for a 30,000 MT/year plant.

We look forward to your early reply.

Sincerely yours,

Dra. Nilda Di Nápoli
Directora

NDN/jr.

BUENOS AIRES, December 11, 1980

Mr. Technical Manager
HENKEL INC
480 Alfred Avenue
Teanek, New Jersey 07666
U. S. A.

Dear Sir,

We should like to know if you have available technology to produce ethoxylated surface-active agents. In such a case we should very much appreciate your sending us complete information on the process.

We should also like to know typical specific consumptions and rough figures of investment for a 30,000 MT/year plant.

We look forward to your early reply.

Sincerely yours,

Dra. Nilda Di Nápoli
Directora

NDN/jr.

BUENOS AIRES, December 11, 1980

Mr. Technical Manager
ICI UNITED STATES INC
Wilmington, Delaware 19897
U. S. A.

Dear Sir,

We should like to know if you have available technology to produce ethoxylated surface-active agents. In such a case we should very much appreciate your sending us complete information on the process.

We should also like to know typical specific consumptions and rough figures of investment for a 30,000 MT/year plant.

We look forward to your early reply.

Sincerely yours,

Dra. Nilda Di Nápoli
Directora

NDN/jr.

Monsanto

MONSANTO INDUSTRIAL CHEMICALS CO.
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166
Phone: (314) 694-1000

January 6, 1981

Dra. Nilda Di Napoli
J. A. Gazzo & Cia. S.A.
Florida 683, Piso 8°
1005 Buenos Aires, Argentina

Dear Dra. Napoli:

Your letter of December 11, 1980 to Mr. Proctor Avon was passed on to our unit of Monsanto Company, Monsanto Industrial Chemicals Company, which manufactures certain ethoxylated surface-active agents. We remind you that Monsanto primarily is a manufacturer and seller of chemical products and we seldom license our technologies outside the Monsanto worldwide organization. In your case, we are sufficiently interested in your inquiry to ask for more information.

We would like to know if your client is an Argentine company, interested in manufacturing the surface-active agents only in Argentina. Your quoted plant capacity of 30,000 tons/year seems high for consumption within Argentina; can you please elaborate.

The commercial products that we make and sell are known under the trademark of STEROX®. The various grades generically are (a) dodecylphenol ethylene oxide condensate and (b) nonylphenol-ethylene oxide condensate. These products are nonionic surface-active agents. As you can see, these agents are the condensation reaction of alkyl phenols with ethylene oxide. Does your client manufacture alkyl phenols or are they also seeking technology to manufacture these intermediates.

In summary, we are somewhat interested in your project and would appreciate more information; your client's identity would be of interest.

We presume J. A. Gazzo & Cia. S.A. is not acting in the role of a "finder" for fee purposes; if so, we would like to know your position in this matter before any further information is exchanged.

We look for your immediate response.

Sincerely yours,

Dom

Dominic Danna
Manager, Technology Licensing

DD:gp

Henkel

Henkel Corporation

480 Alfred Avenue
Teaneck, NJ 07666
201/837-4200

5 de enero de 1981

J. A. GAZZO & CIA. S.A.
Florida 683, Piso 8°
1005 Buenos Aires
Argentina

ATTN: DR. NILDA DI NAPOLI

REF: ETHOXYLATED SURFACE-ACTIVE AGENTS

We acknowledge with thanks receipt of your letter dated December 11, 1980 on aforementioned subject.

You are right in assuming that we have a profound knowledge in the manufacture of ethoxylated surface-active agents. We are, however, not interested in disclosing the requested information unless a license agreement would be involved. Since we are not considering to have our products manufactured under license in Argentina we regret not being able to submit complete information on the process.

We are sure you will understand our attitude and thank you for your interest in Henkel Corporation.

Sincerely yours,

HENKEL CORPORATION

Klemens A. Nolte
Director of Export Sales
Corporate Export Department

KAN:es

Telex 13-4520
Cable HENKEL TECK

1/6/81

J. A. GAZZO & CIA. S.A.
FLORIDA 683, PISO 8
1005 BUENOS AIRES, ARGENTINA

DRA WILDA DE NAPOLI REURLETTER 11 DECEMBER RE INTEREST IN PROCESS FOR MANUFACTURING ETHOXYLATED SURFACTANTS. PLEASE NOTE WE PRODUCE AND MARKET OUR PRODUCTS OF THIS TYPE IN ARGENTINA THROUGH OUR SISTER COMPANY

DUPERIAL, S.A.I.C.
EDIFICIO DUPERIAL
PASEO COLON 285
1330 BUENOS AIRES, ARGENTINA

IANNI
ICI AMERICAS INC.
EXPORT SALES
WILMINGTON, DE 19897

LAI:SMB
FILE
CONFIRMATION