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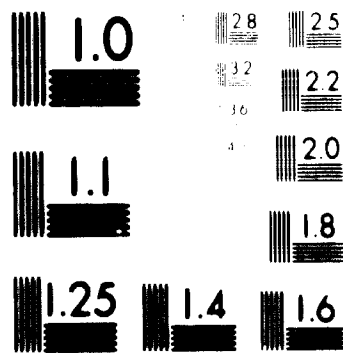
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1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support informed decision-making.

3. The third part of the document focuses on the role of technology in modern data management. It discusses how advanced software solutions can streamline data collection, storage, and analysis, thereby improving efficiency and accuracy.

4. The fourth part of the document addresses the challenges associated with data security and privacy. It stresses the importance of implementing robust security measures to protect sensitive information from unauthorized access and breaches.

5. The fifth part of the document concludes by summarizing the key findings and recommendations. It reiterates the importance of a data-driven approach and encourages the organization to continue investing in data management capabilities to stay competitive in the market.



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ORGANISATION DES NATIONS UNIES  
DEVELOPPEMENT INDUSTRIEL  
TECHNOLOGIE

BY

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1/ The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the Secretariat of UNIDO.

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The government of Argentina has been active in the development of the petrochemical industry, particularly in the last few years. Three National Congresses of the Petrochemical Industry have been held in Buenos Aires. The first was in 1958, the second in 1960, and the third in 1962. The first was in Buenos Aires, the second in Montevideo, and the third in Santiago. The first was presented and discussed the problems of the industry. The second was presented and discussed the problems of the industry. The third, the most important, was presented and discussed the problems of the industry. The Official Argentine Association of Petrochemical Engineers (Asociación Oficial de Ingenieros Químicos de la Industria Petroquímica) was organized in 1958. Among the members were representatives of Argentina, Chile, Ecuador, Germany and France. The first two congresses were held in Buenos Aires. The conclusions were to improve the industry, attract foreign investment and it was decided that Argentine made arrangements for the first Latin American Congress of Petrochemists, which will be held in Buenos Aires with the fourth in Barcelona in 1970.

The National Petrochemical Board was established in 1958 and on 11th, December, the Government of Argentina issued Decree No. 753, these cover all the petrochemical products. The petrochemical products are divided into three groups:

- a) group N° 1: final products
- b) " N° 2: intermediate products
- c) " N° 3: basic raw materials.

Products of group N° 1 are manufactured by private industrial products of group N° 2 are produced by private industrial organizations such as oil and state owned companies. Products of group N° 3 are handled exclusively by oil and state owned companies.

To clarify the actual conditions of the industry, two schedules were tabled. The first schedule dealt with the other about the future situation of the industry.

Some of the new plants will be built with the help of foreign technicians and the government will provide the necessary capital. Besides it was decided to study the possibility of a joint corporation of plastic materials. The first schedule was issued in 1962.



	methyl alcohol	19500	Pilar, Buenos Aires	1965	methane oxidation gas	natural	-
	formaldehyde	20500	Aires	1967	methyl alc.oxid.	methyl alcohol	-
Compania Caseo S.A.I.C.	urea, resins	25000	"	-	-	-	-
	phenolic resins.	2000	"	-	-	-	-
	vinyl resins	2000	"	-	-	-	-
	urea, molding powder	1500	Quilmes, Bs. Aires	-	-	-	-
	phenolic, molding powder.	1500	"	-	-	-	-
Compania Quinica S.A.	hexachlorine	2000	Levallo, Bs. Aires	1943	benzene chlorin.	-	-
	benzene	14000	"	1954	o-xylene oxid.	-	-
	phthalic anh. esters 2-4 D	2500	"	-	-	-	-
	fumaric acid	600	"	1972	phthalic anh.	-	-
Dev Quimica Argentina S.A.	styrene butadiene latex	6000	San Lorenzo, Santa Fe	1969	copolymerization	styrene butadiene	-
Dirección General de Fabricaciones Militares.	benzene, toluene, xylene	13000	Campana, Buenos Aires	1951	-	-	-
	heavy aromatics	10000	Aires	-	-	-	-
	ammonia	16000	"	-	-	-	-
	ammonium sulphate.	18000	"	-	-	-	-
Ducilo S.A.I.C.	Nylon 6,6	12700	Barrasatgui, Bs. As.	1955	polymerization	-	-
	Nylon 6,6	10000	Perchedes, Bs. Aires	1962	"	-	hexamethylenediamine, adipic ac, caprol.
	Nylon 6	2000	Barrasatgui, Bs. As.	1965	-	-	-
Duperial S.A.I.C.	ethylene	16000	San Lorenzo, Santa Fe	1964	gasoline light cracking.	soline	-
	polyethylene	20000	"	1964	polymerization	ethylene	-
	phthalic anh.	12400	"	1975	naphthalene oxid.	-	naphthalene
	sulphur carbonic	14000	"	1962	synthesis	methane, sulphur.	-

Duranor S.A.	phenol	10000	via Tar- pero. Sulfol	100	via Tar- pero	benzene	-
	o,p benzendi- chlorine	5000	"	100	"	-	-
	phenolic res- ins,dis.	15000	"	100	"	-	-
	phenolic res- ins,al.	15000	"	100	"	-	-
	polyester re- sins.	10000	"	100	"	-	-
	vinyl,acryl,sty- renic copolymers.	20000	"	100	"	-	-
	glue urea-for- maldehyde.	50000	"	100	"	-	-
Electro- clor S.A.	hexachlorocyclo- hexane	1000	via Tar- pero,Can- ta de.	100	chlorina- tion	benzene	-
	polyvinylchloride	20000	"	100	polymeri- zation	chlorine vinyl	-
	vinyl chloride	10000	"	100	synthesis	chloride	-
	carbon tetrachlo- ride.	10000	"	100	"	acetylene, ne,ClH.	-
	ethylen trichloride.	10000	"	100	"	chlorine, acetylene	-
Hisisa Argentina S.A.	acrylic fibers	5000	via Tar- pero,Can- ta de.	100	-	-	acryl- nitrilo.
	acryl-nitrilo	5000	"	100	synthesis	propylene, ammonia.	-
Indupa S.A.	benzen hexachlo- rine	1000	via Tar- pero,Can- ta de.	100	chlorina- tion	chlorine, benzene	-
	vinyl chloride	10000	"	100	synthesis	calcium car- bide, chlorine	-
	poly vinyl chloride.	12000	"	100	polymeriza- tion	-	-
	ethylen trichloride.	10000	"	100	synthesis	-	-
Industria Saladillo	polystyrene	10000	via Tar- pero,Can- ta de.	100	polymeri- zation	styrene	-
Ipako S.A.	polystyrene and copolymers	10000	via Tar- pero,Can- ta de.	100	polymeri- zation	styrene	-
	polystyrene ex- pansible.	4000	"	100	"	"	-
	ethylene polyethylene	15000 14000	via Tar- pero,Can- ta de.	100 100	polymeri- zation	ethylene, polymer.	- -



Sonsanto S.A.	polystyrene and copolymers	20000	Zarate Bs.Aires	1950	polimeri- sation.	styrene	-
Nec-Plax S.S.R.L.	polystyrene	2000	L.Zamora Bs.Aires.	1972	-	-	-
Fasa, Petroquímica Argentina S.A.	styrene	27000	San Lorenzo, Santa Fe	1965	alquil- benzene	benzene ethylene	-
	styrene	50000	"	1974	ethylene,	-	-
	S.T.X.	110000	"	1965	reforming	deshydrog.	-
	butadiene	37000	"	1965	deshydrog.	gasoline	YPF -
	ethylene styrene- butadiene	20000 50000	"	1965 1965	butane cracking	gasoline	-
nitrilo caout- chouc.	2000	"	1973	-	-	-	
Petroquímica Gral. Mosconi.	benzene	70000	Ensenada	1974	reforming	gasoline	-
	toluene	20000	Bs.Aires	1974	-	-	-
	o-xylene	20000	"	1974	-	-	-
	p-xylene	40000	"	1974	-	-	-
	ciclo hexane	45000	"	1975	benzene hydrog.	-	-
	High flash xylene, mixing	2000 5000	"	1975 1975	gasoline reforming	-	-
Petrosur	ammonia	68000	Campana	1963	synthesis	methane	-
	urea	72000	Bs.Aires	1963	"	-	-
Petroquímica Sudamericana S.A.	dimethyl terephthalate	17000	La Plata Bs.Aires	1964	Witten	methyl alcohol	p-xylene ethylen glycol caprolac tama
	polyamide 6	1000	"	1963	polycond ensation	-	dimethyl terephtha late, ethylen- glycol.
	polyester	4300	"	1964	esteri fication	-	-
Plast S.C.A.	polyestirene	7000	Sarandi Bs.Aires	1960	polimeri- sation	styrene	-
Plásticos Bernabé	polystyrene	4500	Moreno Bs.Aires	1963	poly con- denation.	styrene	-
Poliámidas Argentinas	polyamide 6	2000	San Sar- tin, Bs. to.	1964	poly con- denation	-	capro- lactama.

Polystyrenos Argentinos	polystyrene	3000	Del Viso Bs.Aires	1974	polymeri- sation.	styrene	-
Prestyl	polyamide 6	1400	Hawson, Chubut	1962	polymeri- sation	-	capro- lactama
Quimica Hoechst S.A.	vinyl poly aceta- te and copolymers	10000	LLavallol Bs.Aires	1966	polymeri- sation	-	mono- mers
Refinerias de Mais S.A.I.C.	vinyl poly aceta- te and copolymers	2000	Maradero Bs.Aires.	1966	polymeri- sation	-	mono- mers.
Sipax S.A.	vinyl poly aceta- te and copolymers and poly acrylics.	2400	Capital Federal	1966	polymeri- sation	-	mono- mers.
Snifia S.A.I.C.	polyamide 6	800	Hernandez Bs.Aires	1959	poly con- densation	-	capro- lactama-
Sudantex S.A.	polyester	6000	Asul Bs.Aires	1963	esterific. condensat.	methyl DNT, eth; alcohol, len glycol.	
Viplastic S.A.	vinyl chloride poly vinyl chlo- ride	7500 6000	C.de Coria Mendoza	1957 1957	acetylen/ carbide polymeri- sation	acetylene, ClH vinyl chloride	- -
Y.P.F.	dodecylbenzene	15000 30000	La Plata Bs.Aires	1975 1975	hard type biodegre- dable	tetramero, benzene linear paraffine	- -

Note: official information given by the Industrial Development Secretary,  
one of the Secretary of State.

Chemical and Petrochemical

1973-1974

COMPANY	PRODUCT	QUANTITY (TONNES)	LOCATION	YEAR	DESCRIPTION
Gas del Estado	ethane	200000	San Pedro	1973	natural gas
	liquid gas (propane, butane)	300000	"	1973	"
Petroquímica Bahía Blanca	ethylene	200000	Bahía Blanca	1973	ethane
	propylene	200000	"	1973	"
Polisar Socie- dad Mixta.	polyethylene, low density	110000	"	1973	ethylene, P.B.B.
Monómeros Vini- licos Sociedad Mixta.	vinyl chlo- ride	150000	"	1973	" chloride
Inductor Socie- dad Mixta.	chlorine	30000	"	1973	salt
	sodium hydro- xide	110000	"	1973	"
Petrol Socie- dad Mixta.	polyethylene, high density	20000	"	1973	ethylene, P.B.B.
Y.P.F.	couene	40000	Argentina	1973	benzene, propylene
Y.P.F.- Duracor	phenol	24000	"	1973	couene
	acetone	21000	"	1973	"
Petroquímica Rio Tercero.	toluene diiso- cyanate	15000	Rio Tercero	1973	toluene, P.B.B.
Agroquímicos Latinameri- canos	parathion	5000	Uruguay	1973	parathion phe- nol
	malathion	5000	"	1973	"

--	polymerized	3000	1000	-
--	caprolactam	5000	5000	-
--	nitrocellulose	1000	1000	-
--	methanol	3000	3000	-
--	benzene	1000	1000	-
--	fertilizer	-	5000	-

Note: information given by the Official Institute of Fuel, (YPR).



Polystyrene-normal consumption  
consumption, %

	1961	1972	1973	1974	1975	1980
Packaging	10	10	10	10	32	40
Refrigeration	10	10	10	10	24	20
Radio, T.V., etc.	10	10	10	10	12	16
Industrial products	10	11	10	11	12	14
Basar, toys	10	7	8	7	6	5
various	6	6	7	7	4	3
	100	100	100	100	100	100

Styrene-normal consumption, %

	1961	1972	1973	1974	1975	1980
Basar and home	50	50	50	50	26	25
Motor-car	40	45	45	50	50	51
Refrigeration	30	15	15	12	12	14
Various	15	10	12	12	12	10
	100	100	100	100	100	100

Polystyrene-normal consumption  
Production, ton.

	1961	1972	1973	1974	1975	1980
	20	0	20	20	300	-

Polystyrene-expandable-consumption, %

	1961	1972	1973	1974	1975	1980
Refrigeration, isolator	10	10	10	10	30	40
Building	40	45	41	40	40	40
Molding	50	45	49	50	30	20
	100	100	100	100	100	100

Polypropylene production, tons.

	1971	1972	1973	1974	1975	1980
	500	5400	400	400	11000	33000

Polypropylene uses, tons.

	1971	1972	1973	1974	1975	1980
Injection and blowing	40	40	7	9	36	55
Woven cloth	12	24	50	4	51	50
Extrusion	1	1	3	7	7	10
Various	2	1	5	8	6	5

Polypropylene production, tons.

USE	1971	1972	1973	1974	1975	1980
Textile	5500	5000	5000	-	-	-
Molding (I. and O.)	5500	5000	4000	-	-	-
Others	-	-	-	-	-	-
Total	6000	5000	4000	10000	15000	30000

Note: Polypropylene is not produced in Germany.

Polypropylene production, tons.

	1971	1972	1973	1974	1975	1980
	53.00	59000	4000	33.00	30000	-

Polypropylene uses, tons.

	1971	1972	1973	1974	1975	1980
Film	64	60	37	6	68	65
Injection	14	14	1	13	12	12
Blowing	10	10	12	1	12	14
Spreading	1	1	1	1	1	3
Pipes	3	3	3	3	3	3
Wires	4	4	4	4	4	2
Various	1	1	1	1	1	2

Polyethylene: low-density - production, tons.

	1971	1972	1973	1974	1975	1980
	4000	4500	5000	5500	6000	10000

Polyethylene: high-density - national requirement, tons.

	1971	1972	1973	1974	1975	1980
	6000	7000	8000	9000	10000	20000

Polyethylene: high-density - Consumption, t.

	1971	1972	1973	1974	1975	1980
Injection and blowing	20	60	65	65	60	65
Filaments, woven cloth	2	35	3	30	30	25
Films, pipes, etc.	5	5	5	5	10	10

Polyethylene: high-density - importation, tons.

	1971	1972	1973	1974	1975	1980
	4000	5000	2000	500	1000	-

**Note:** Polyethylene high density is not produced in Argentina.

Polyvinyl chloride: resin - national production, tons.

	1971	1972	1973	1974	1975	1980
	30000	30000	27000	25000	30000	-

Polyvinyl chloride: resin - consumption, tons.

	1971	1972	1973	1974	1975	1980
	34000	37000	34500	50000	50000	60000



Plastic pipe production, tons

	1971	1972	1973	1974	1975	1980
Rigid	23	24	27	27	28	35
Flexible	75	74	76	77	70	65

Plastic pipe production, tons

	1971	1972	1973	1974	1975	1980
Films	1	2	2	4	17	8
Pavements	-	5	4	-	6	8
Papers and cloths	1	14	1	-	16	16
Pipes	1	1	1	-	19	20
Flexible pipes	-	-	-	-	8	7
Rigid articles, extrusion	-	18	2	-	15	20
Records	1	5	4	-	3	2
Shoes	11	11	11	-	11	9
Various	1	1	2	-	10	10
	100	100	100	-	100	100

Polystyrene production, tons

	1971	1972	1973	1974	1975	1980
	2000	2000	2000	-	-	-

Polyester in primary resin, Argentine production, tons

	1971	1972	1973	1974	1975	1980
	2000	2000	5000	2000	-	-

Polyester resin production, tons

	1971	1972	1973	1974	1975	1980
	2000	2000	5000	2000	10000	22000

Polyester-Consumption, t.

	1971	1972	1973	1974	1975	1980
Building	48	46	21	30	-	-
Naval articles	27	25	26	34	-	-
Transportation	15	10	8	10	-	-
Waterproof	-	2	2	1	-	-
Electricity	-	4	3	4	-	-
Various	22	4	5	5	-	-

Polyester-Consumption, tons.

	1971	1972	1973	1974	1975	1980
	5000	5000	5000	7000	-	-

Phenolic resins-Consumption, t.

	1971	1972	1973	1974	1975	1980
Molding	40	40	50	-	-	-
Laminated	17	18	20	-	-	-
Motor car	15	14	18	-	-	-
Abrasives	2	10	10	-	-	-
Various	10	10	10	-	-	-

Phenolic-Consumption, tons.

	1971	1972	1973	1974	1975	1980
Molding powder	3800	4100	4300	4200	-	7000
Solid resins	300	900	1100	1300	-	2500
Liquid resins, 60%	5100	5000	6000	6500	-	10000

Polyamide-Consumption, tons.

	1971	1972	1973	1974	1975	1980
	500	1100	1800	1000	2000	3000

Urea: molting powder- consumption, %

	1971	1972	1973	1974	1975	1980
Industrial articles	24	2	33	24	55	78
Packing	1	15	21	1	13	20
Various	1	5	5	5	2	2

Urea: molting powder- on-line production, tons.

	1971	1972	1973	1974	1975	1980
Urea	1975	2000	1900	2000	2300	-
Urea formaldehyde, glue	14500	14000	14500	14500	21300	-

Urea: molting powder- consumption, %

	1971	1972	1973	1974	1975	1980
Packing	-	-	-	-	50	-
Electricity	-	-	-	-	20	-
Various	-	-	-	-	30	-

Melamine: molting powder- on-line production, tons.

	1971	1972	1973	1974	1975	1980
	100	200	300	400	500	-

Melamine: molting powder- consumption, %

	1971	1972	1973	1974	1975	1980
Table set	-	-	-	-	90	-
Electricity	-	-	-	-	5	-
Various	-	-	-	-	5	-

Polyurethane-Argentine production.Tons.

	1971	1972	1973	1974	1975	1980
	16700	18000	20000	20500	25000	50000

Polyurethane-Consumption, t.

	1971	1972	1973	1974	1975	1980
Flexible foam	-	90	85	85	80	70
Rigid foam	-	8	10	10	10	15
Varnish	-	2	5	5	10	15

Acrylic-Argentine production.Tons.

	1971	1972	1973	1974	1975	1980
Molding powder	100	200	250	300	550	-
Sheets, etc.	2300	2500	3300	3970	4500	-
Total	2400	2700	3500	4200	5050	-

Cellulose acetate:molding compound.Argentine production.Tons.

	1971	1972	1973	1974	1975	1980
	-	300	400	450	-	-

Cellulose acetate-Consumption.Tons.

	1971	1972	1973	1974	1975	1980
	-	300	400	600	-	-

Cellulose acetate-Consumption,t.

	1971	1972	1973	1974	1975	1980
Packing	-	-	-	-	50	-
Molding	-	-	-	-	50	-

PRODUCTION OF POLYETHYLENE (in tons)

	1971	1972	1973	1974	1975	1980
	120	150	180	1200	-	-

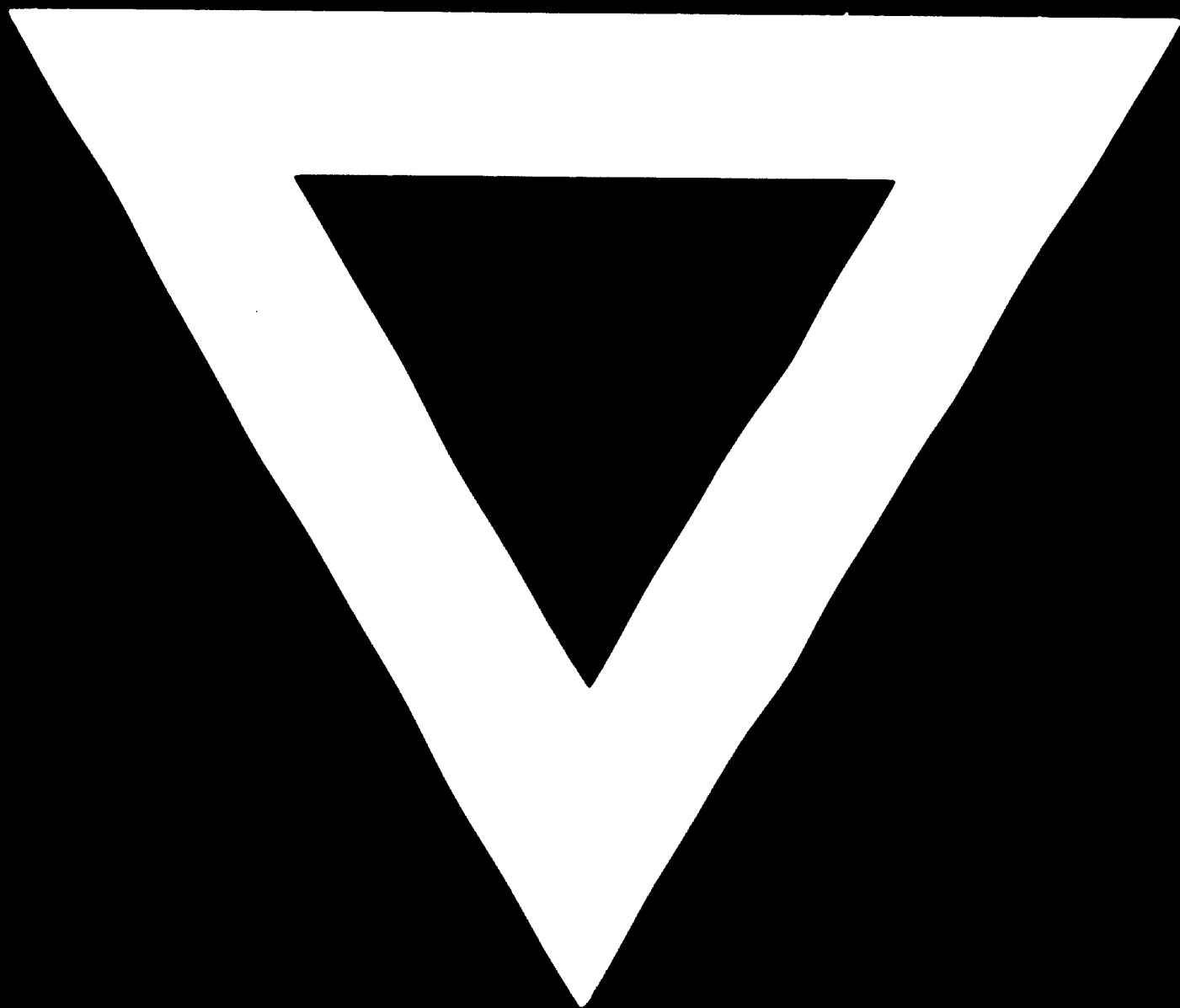
INDUSTRY CONSUMPTION (in tons)

	1971	1972	1973	1974	1975	1980
Painting	-	-	-	20	-	-
Electricity	-	-	-	20	-	-
Tool bag	-	-	-	40	-	-
Various	-	-	-	20	-	-

Note: this data are taken from the publication "Notiziario del Plastico", (Plastics News).  
 The difference between production and consumption represent the importation.



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**77.06.29**