

Buy	
EUR <b>32.20</b>	(EUR 35.30)
Price	EUR 21.30
Upside	51.2 %

Value Indicators:	EUR
DCF:	32.22
FCF-Value Potential 22-24:	36.81
SotP 22-23:	34.26
Market Snapshot:	EUR m
Market cap:	215.9
No. of shares (m):	10.1
EV:	372.7
Freefloat MC:	95.8
Ø Trad. Vol. (30d):	129.11 th

Warburg ESG Risk Score:	2.4
ESG Score (MSCI based):	3.0
Balance Sheet Score:	3.3
Market Liquidity Score:	1.0
Charabaldara	

Market Liquidity ocore.	1.0
Shareholders:	
Freefloat	44.37 %
LIVIA Corporate Development	25.13 %
HDI Vier CE GmbH	15.05 %
for two na GmbH	15.05 %

# Description: Alzchem is an integrated specialty chemicals provider

Key Figures (WRe):	2022e
Beta:	1.5
Price / Book:	1.8 x
Equity Ratio:	31 %
Net Fin. Debt / EBITDA:	0.6 x
Net Debt / EBITDA:	2.5 x

# **Bracing for higher costs**

State	d Figures Q1/2022	:				
		Q1 2022	yoy	Q1 2022e	Q1 2021	Consensus
	Sales Group	129,40	24,0%	117,81	104,32	116,7
thereof	Specialty Chemicals	65,30	15,0%	60,75	56,78	
	Basics & Intermediates	57,40	39,8%	50,52	41,07	
	Other & Holding	6,70	3,5%	6,54	6,48	
	EBITDA Group	17,10	2,3%	16,66	16,72	17,8
	EBITDA margin	0,13		14,1%	16,0%	
thereof	Specialty Chemicals	14,30	2,5%	14,58	13,95	
	Basics & Intermediates	2,80	0,3%	2,02	2,79	
	Other & Holding	-0,10	n.m.	0,46	0,44	
	Consolidation	0,10	n.m.	-0,40	-0,45	
	EBIT Group	10,77	-0,4%	10,81	10,81	12
	Net profit	7,93	0,5%	7,81	7,89	8,40
	EpS	0,76	-2,6%	0,77	0,78	0,83

#### Comment on Figures:

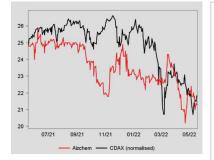
- While Q1 2022 sales clearly beat the consensus and our estimates, earnings were mostly in line with WR but somewhat below consensus estimates.
- The Specialty Chemicals segment benefitted from ongoing high demand for custom manufacturing products, the DYHARD® product range (mostly targeting the automotive sector) as well as Dormex® (product for the agriculture sector). Creapure® as well as Creamino® recorded high growth rates. Sales were somewhat negatively affected by raw-material availability and logistic constraints. As a result, EBITDA increased only slightly yoy.
- In Basic & Intermediates, the company managed to pass on most of the steep increases in raw-material and energy costs, which resulted in a significant increase in sales while EBITDA remained flat yoy.
- In the Other & Holding segment, only a slight increase in sales was recorded yoy while EBITDA declined owing to higher raw-material costs. These will eventually be passed on to customers but with a time lag

Headwinds arising from massively rising energy and raw-material costs as well as from logistics, which became even more complicated, were navigated well by Alzchem in Q1 2022. However, as the war in Ukraine and the sanctions on Russia only kicked in at the end of February, the company is in for the real litmus test in Q2. Cost inflation has already left its mark on the balance sheet as working capital requirements increased by EUR 19.6m. This resulted in FCF of EUR -12.9m, which was significantly more negative than in Q1 2021 (EUR -1.9m). Nevertheless, the equity ratio increased from 23.0% in Q1 2021 to 28.2% a year later as a consequence of favourable net income in FY 2021 as well as lower pension provisions. The company increased the upper end of its sales guidance from EUR 480m to EUR 520m, reflecting the translation of higher costs into higher selling prices. The EBITDA guidance however remained unchanged and is spanning from a noticeable decline to a strong increase to up to EUR 68m, a reflection of the ongoing macroeconomic uncertainties. Based on our revised estimates, we reiterate Buy but cut our PT to EUR 32.20 (based on a DCF calculation and an increase in the risk-free rate to 2% from 1.5%).

Changes in Estimates:													
FY End: 31.12. in EUR m	2022e (old)	+/-	2023e (old)	+/-	2024e (old)	+/-							
Sales	480.7	0.4 %	505.0	0.4 %	527.5	0.3 %							
EBIT	39.5	-4.7 %	46.6	-4.2 %	50.7	-4.0 %							
EPS	2.63	<b>-</b> 5.0 %	3.15	-5.5 %	3.46	-5.0 %							
DPS	1.00	0.0 %	1.10	0.0 %	1.10	0.0 %							
Net Debt	170.4	-8.0 %	158.2	-7.5 %	143.7	-7.1 %							

#### Comment on Changes:

 Changes in estimates mainly reflect slightly higher depreciation charges as well as lower pension provisions than originally anticipated.

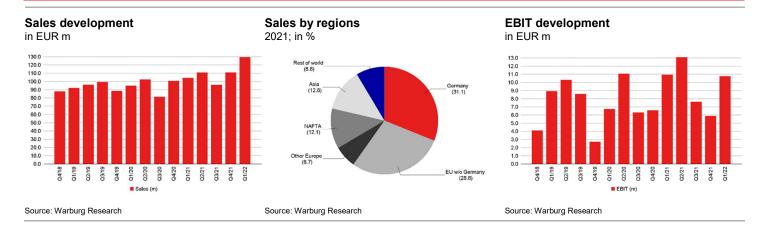


Rel. Performance vs CDAX:	
1 month:	4.7 %
6 months:	8.5 %
Year to date:	6.5 %
Trailing 12 months:	-1.0 %
Company events:	
26.07.22	Q2
26.10.22	Q3

FY End: 31.12.	CAGR	0040	0040	2222	0004		0000	0004
in EUR m	(21-24e)	2018	2019	2020	2021	2022e	2023e	2024e
Sales	7.8 %	375.2	376.1	379.3	422.3	482.5	506.8	529.2
Change Sales yoy		6.0 %	0.2 %	0.8 %	11.3 %	14.3 %	5.0 %	4.4 %
Gross profit margin		60.0 %	60.8 %	64.4 %	62.0 %	57.0 %	57.1 %	56.9 %
EBITDA	6.6 %	49.4	50.1	53.8	62.0	62.8	70.6	75.3
Margin		13.2 %	13.3 %	14.2 %	14.7 %	13.0 %	13.9 %	14.2 %
EBIT	9.0 %	34.2	30.6	30.7	37.6	37.6	44.7	48.7
Margin		9.1 %	8.1 %	8.1 %	8.9 %	7.8 %	8.8 %	9.2 %
Net income	6.5 %	22.7	18.0	19.7	27.6	25.3	30.2	33.3
EPS	6.5 %	2.23	1.77	1.94	2.72	2.50	2.98	3.29
EPS adj.	6.5 %	2.23	1.77	1.94	2.72	2.50	2.98	3.29
DPS	3.2 %	0.90	0.75	0.77	1.00	1.00	1.10	1.10
Dividend Yield		3.2 %	3.5 %	3.9 %	4.1 %	4.7 %	5.2 %	5.2 %
FCFPS		-0.51	0.23	1.95	1.43	-0.67	2.35	2.63
FCF / Market cap		-1.8 %	1.1 %	9.9 %	5.9 %	-3.2 %	11.0 %	12.3 %
EV / Sales		1.2 x	1.1 x	1.0 x	1.0 x	0.8 x	0.7 x	0.7 x
EV / EBITDA		9.0 x	8.1 x	7.2 x	6.9 x	5.9 x	5.1 x	4.6 x
EV / EBIT		13.0 x	13.2 x	12.6 x	11.3 x	9.9 x	8.1 x	7.2 x
P/E		12.8 x	12.0 x	10.2 x	8.9 x	8.5 x	7.2 x	6.5 x
P / E adj.		12.8 x	12.0 x	10.2 x	8.9 x	8.5 x	7.2 x	6.5 x
FCF Potential Yield		5.9 %	6.4 %	7.9 %	9.1 %	9.8 %	11.7 %	12.9 %
Net Debt		155.0	188.3	185.4	179.8	156.8	146.3	133.6
ROCE (NOPAT)		11.7 %	9.2 %	8.9 %	10.9 %	9.8 %	11.2 %	11.8 %
Guidance:	FY 2021: EBIT	DA of EUR 6	60-68m					

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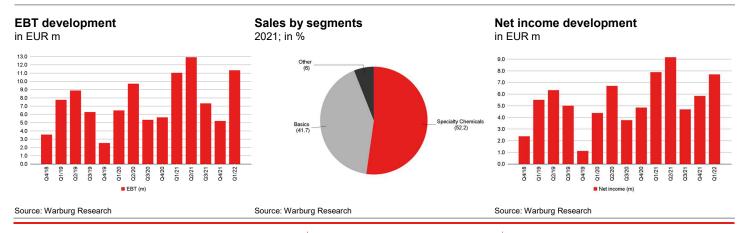


# **Company Background**

- Alzchem goes back to the Bayerische Stickstoff-Werke GmbH (1908), which built a large calcium carbide and calcium cyanamide plant on the river Alz
- In 1939, Bayerische Kraftwerk AG and Donauwerke AG merged to form Süddeutsche Kalkstickstoffe AG, based in Trostberg. In 1978 company's name was changed to SKW Trostberg AG
- Merger of Degussa Hüls AG with Trostberg AG to form Degussa AG in 2000. Merger of the Alz locations Trostberg, Schalchen, Hart and Waldkraiburg into AlzChem Holding GmbH in 2006
- Takeover by bluO in 2009, conversion to Alzchem AG 2011. In 2019 the company heavily invested in the area of feed additives with the construction of a dedicated CreAMINO® production facility
- Alzchem is brought into the listed Alzchem Group AG (formerly Softmatic AG). Alzchem Group AG is the new parent company of the Alzchem Group. 2019 Commissioning of investment projects Creamino® and Nitrile

### **Competitive Quality**

- Alzchem is a globally active, vertically integrated manufacturer of various chemical products of the calcium carbide/calcium cyanamide chain with a strategic focus on growth in the Specialty Chemicals business segment
- Alzchem's integrated manufacturing "Verbund" system enables efficiency gains in production. The company is the global leader or among the leading companies in its chosen fields of activity
- The company has four production facilities in Germany and one in Sweden that are complemented by two marketing companies in the US and in China allowing for global distribution of its products
- The company is benefiting from megatrends like sustainable energy production, population growth and increase in aging population. Its products offer attractive solutions that meet demand growth.
- Alzchem provides a highly diversified product portfolio ranging e.g. from dietary supplements, plant growth regulators to precursors for corona testing, thus addressing a wide range of customer industries





DCF model														
	Detaile	d forecas	t period				7	ransition	al period					Term. Value
Figures in EUR m	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	2034e	
Sales	482.5	506.8	529.2	550.4	571.8	593.5	615.5	637.7	660.0	681.8	702.9	723.3	742.8	
Sales change	14.3 %	5.0 %	4.4 %	4.0 %	3.9 %	3.8 %	3.7 %	3.6 %	3.5 %	3.3 %	3.1 %	2.9 %	2.7 %	1.0 %
EBIT	37.6	44.7	48.7	51.6	53.1	54.5	55.9	57.2	58.6	59.8	61.0	62.0	63.0	
EBIT-margin	7.8 %	8.8 %	9.2 %	9.4 %	9.3 %	9.2 %	9.1 %	9.0 %	8.9 %	8.8 %	8.7 %	8.6 %	8.5 %	
Tax rate (EBT)	28.0 %	28.0 %	28.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	29.0 %	
NOPAT	27.1	32.2	35.1	36.6	37.7	38.7	39.7	40.6	41.6	42.5	43.3	44.0	44.7	
Depreciation	25.2	25.9	26.6	28.2	29.9	31.6	33.4	35.2	37.1	39.0	40.9	42.8	44.7	
in % of Sales	5.2 %	5.1 %	5.0 %	5.1 %	5.2 %	5.3 %	5.4 %	5.5 %	5.6 %	5.7 %	5.8 %	5.9 %	6.0 %	
Changes in provisions	-20.0	3.0	2.7	5.0	5.1	5.2	5.2	5.3	5.3	5.2	5.0	4.8	4.6	
Change in Liquidity from														
- Working Capital	11.4	3.7	3.3	7.3	7.6	4.9	4.9	5.0	5.0	4.9	4.7	4.6	4.4	
- Capex	30.0	30.9	31.8	35.8	36.6	37.4	38.2	38.9	39.6	40.9	42.2	43.4	44.6	
Capex in % of Sales	6.2 %	6.1 %	6.0 %	6.5 %	6.4 %	6.3 %	6.2 %	6.1 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	
- Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Free Cash Flow (WACC Model)	-9.1	26.5	29.2	26.8	28.5	33.2	35.2	37.3	39.4	40.9	42.3	43.8	45.1	45
PV of FCF	-8.7	23.5	23.9	20.4	20.0	21.6	21.2	20.8	20.4	19.6	18.8	18.0	17.2	248
share of PVs		7.99 %						40.87	7 %					51.14 %

Model parameter				Valuation (m)			
Derivation of WACC:		Derivation of Beta:		Present values 2034e	237		
				Terminal Value	248		
Debt ratio	34.00 %	Financial Strength	1.50	Financial liabilities	45		
Cost of debt (after tax)	3.6 %	Liquidity (share)	2.00	Pension liabilities	120		
Market return	7.50 %	Cyclicality	1.50	Hybrid capital	0		
Risk free rate	2.00 %	Transparency	1.50	Minority interest	2		
		Others	1.00	Market val. of investments	0		
				Liquidity	8	No. of shares (m)	10.1
WACC	7.97 %	Beta	1.50	Equity Value	327	Value per share (EUR)	32.22

Sens	itivity va	liue per Sn	are (EUK	)													
	Terminal Growth									Delta EBIT-margin							
Beta	WACC	0.25 %	0.50 %	0.75 %	1.00 %	1.25 %	1.50 %	1.75 %	Beta	WACC	-0.8 pp	-0.5 pp	-0.3 pp	+0.0 pp	+0.3 pp	+0.5 pp	+0.8 pp
1.78	9.0 %	23.71	24.22	24.77	25.35	25.97	26.62	27.33	1.78	9.0 %	21.25	22.62	23.98	25.35	26.71	28.08	29.44
1.64	8.5 %	26.58	27.20	27.85	28.55	29.29	30.09	30.95	1.64	8.5 %	24.17	25.63	27.09	28.55	30.01	31.47	32.93
1.57	8.2 %	28.16	28.83	29.55	30.32	31.14	32.02	32.97	1.57	8.2 %	25.78	27.29	28.80	30.32	31.83	33.34	34.85
1.50	8.0 %	29.84	30.58	31.37	32.22	33.13	34.11	35.16	1.50	8.0 %	27.51	29.08	30.65	32.22	33.78	35.35	36.92
1.43	7.7 %	31.64	32.45	33.32	34.26	35.27	36.36	37.54	1.43	7.7 %	29.37	31.00	32.63	34.26	35.89	37.52	39.15
1.36	7.5 %	33.57	34.46	35.43	36.47	37.59	38.81	40.13	1.36	7.5 %	31.38	33.08	34.77	36.47	38.16	39.86	41.55
1.22	7.0 %	37.87	38.97	40.16	41.45	42.85	44.38	46.06	1.22	7.0 %	35.92	37.76	39.61	41.45	43.29	45.13	46.98

- The beta value Beta value reflects the limited liquidity of the share (Free float 47.5%),
- In addition, transparency is reduced for structural reasons as Alzchem is positioned as a B2B company



### **Free Cash Flow Value Potential**

Warburg Research's valuation tool "FCF Value Potential" reflects the ability of the company to generate sustainable free cash flows. It is based on the "FCF potential" - a FCF "ex growth" figure - which assumes unchanged working capital and pure maintenance capex. A value indication is derived via the perpetuity of a given year's "FCF potential" with consideration of the weighted costs of capital. The fluctuating value indications over time add a timing element to the DCF model (our preferred valuation tool).

in EUR m		2018	2019	2020	2021	2022e	2023e	2024e
Net Income before minorities		22.8	18.1	19.9	27.8	25.5	30.3	33.5
+ Depreciation + Amortisation		15.2	19.5	23.1	24.5	25.2	25.9	26.6
- Net Interest Income		-2.2	-2.6	-2.1	-1.5	-1.2	-1.5	-1.0
- Maintenance Capex		14.0	14.5	14.7	14.8	15.3	15.5	15.9
+ Other		0.0	0.0	0.0	0.0	0.0	0.0	0.0
= Free Cash Flow Potential		26.2	25.8	30.4	38.9	36.6	42.3	45.2
FCF Potential Yield (on market EV)		5.9 %	6.4 %	7.9 %	9.1 %	9.8 %	11.7 %	12.9 %
WACC		7.97 %	7.97 %	7.97 %	7.97 %	7.97 %	7.97 %	7.97 %
= Enterprise Value (EV)		444.4	404.4	387.2	425.3	372.7	362.2	349.4
= Fair Enterprise Value		328.6	323.3	381.2	487.8	459.0	530.1	566.9
- Net Debt (Cash)		39.8	39.8	39.8	39.8	36.8	23.3	7.8
- Pension Liabilities		140.0	140.0	140.0	140.0	120.0	123.0	125.7
- Other		0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Market value of minorities		0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Market value of investments		0.0	0.0	0.0	0.0	0.0	0.0	0.0
= Fair Market Capitalisation		148.9	143.5	201.5	308.0	302.2	383.8	433.4
Number of shares, average		10.2	10.2	10.2	10.1	10.1	10.1	10.1
= Fair value per share (EUR)		14.63	14.10	19.80	30.39	29.82	37.87	42.76
premium (-) / discount (+) in %						40.0 %	77.8 %	100.7 %
Sensitivity Fair value per Share (E	UR)							
1	0.97 %	5.82	5.44	9.59	17.23	17.44	23.57	27.46
	9.97 %	8.18	7.76	12.33	20.74	20.74	27.38	31.54
	8.97 %	11.07	10.60	15.69	25.03	24.77	32.04	36.52
WACC	7.97 %	14.63	14.10	19.80	30.39	29.82	37.87	42.76
	6.97 %	19.34	18.73	25.27	37.29	36.32	45.37	50.78
	5.97 %	25.55	24.84	32.47	46.51	44.99	55.38	61.49
	4.97 %	34.25	33.41	42.57	59.43	57.15	69.42	76.50

Historical volatility of the value indication is due to cyclical operative development



Sum of the parts										
	Sal	es	EBITI	DA*	EBITDA-	Margin	EBITD	A (x)	Fair valu	e (calc.)
€m	2022e	2023e	2022e	2023e	2022e	2023e	2022e	2023e	2022e	2023e
Specialty Chemicals	239,28	256,81	52,45	59,04	0,22	0,23	8,28	7,63	434,47	450,40
Basics & Intermediates	217,31	223,83	9,76	11,46	0,04	0,25	4,18	4,00	40,80	45,88
Other & Holding	25,91	26,17	1,39	1,83	0,05	0,07	5,43	5,10	7,53	9,33
Consolidation	0,00	0,00	-0,77	-0,70	n.m.	n.m.	5,96	5,58	-4,60	-3,90
Total	482,49	506,80	62,83	71,63	12,9%	13,9%			478,19	501,71
- Net debt**									-36,82	-23,26
- Pension liabilities**									-119,98	-123,01
- Minorities***									-3,48	-4,00
+ Financial investments***									0,00	0,00
Fair equity value									441,38	478,46
Fair value/share (€)									31,37	34,67
Average fair value/share (€)										33,02

<sup>\*</sup> w/o extraordinary items

<sup>\*\*</sup> At book value

<sup>\*\*\*</sup> At market value

Specialty chemicals segment peers: Covestro, Huntsman, Ube Industries, PetroChina Company and Kumho Petrochemical
 Basics & Intermediates segment peers: BASF, DuPont de Nemours, Clariant, Evonik, Lanxess,

International Flavours and Fragrances (IFF)

Other & Holding segment peer: Evonik



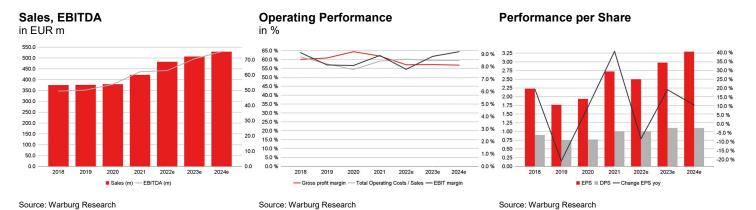
Valuation							
	2018	2019	2020	2021	2022e	2023e	2024e
Price / Book	4.3 x	3.6 x	3.0 x	2.8 x	1.8 x	1.5 x	1.3 x
Book value per share ex intangibles	6.50	5.72	6.40	8.42	11.91	13.90	16.11
EV / Sales	1.2 x	1.1 x	1.0 x	1.0 x	0.8 x	0.7 x	0.7 x
EV / EBITDA	9.0 x	8.1 x	7.2 x	6.9 x	5.9 x	5.1 x	4.6 x
EV / EBIT	13.0 x	13.2 x	12.6 x	11.3 x	9.9 x	8.1 x	7.2 x
EV / EBIT adj.*	13.0 x	13.2 x	12.6 x	11.3 x	9.9 x	8.1 x	7.2 x
P/FCF	n.a.	93.8 x	10.1 x	16.9 x	n.a.	9.1 x	8.1 x
P/E	12.8 x	12.0 x	10.2 x	8.9 x	8.5 x	7.2 x	6.5 x
P / E adj.*	12.8 x	12.0 x	10.2 x	8.9 x	8.5 x	7.2 x	6.5 x
Dividend Yield	3.2 %	3.5 %	3.9 %	4.1 %	4.7 %	5.2 %	5.2 %
FCF Potential Yield (on market EV)	5.9 %	6.4 %	7.9 %	9.1 %	9.8 %	11.7 %	12.9 %
*Adjustments made for: Restructuring costs, value adjus	tments, one-off earnings/lo	sses					



Consolidated profit & loss							
In EUR m	2018	2019	2020	2021	2022e	2023e	2024
Sales	375.2	376.1	379.3	422.3	482.5	506.8	529.
Change Sales yoy	6.0 %	0.2 %	0.8 %	11.3 %	14.3 %	5.0 %	4.4 %
Increase / decrease in inventory	5.5	-4.9	-2.5	10.0	0.0	0.0	0.0
Own work capitalised	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Sales	380.7	371.2	376.7	432.3	482.5	506.8	529.
Material expenses	155.4	142.4	132.5	170.7	207.4	217.3	228.
Gross profit	225.2	228.8	244.2	261.7	275.1	289.5	300.9
Gross profit margin	60.0 %	60.8 %	64.4 %	62.0 %	57.0 %	57.1 %	56.9 %
Personnel expenses	114.2	122.1	127.4	132.2	141.5	147.6	153.2
Other operating income	13.4	17.1	10.7	11.4	12.2	12.8	13.4
Other operating expenses	75.1	73.8	73.7	78.8	82.9	84.1	85.8
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	49.4	50.1	53.8	62.0	62.8	70.6	75.3
Margin	13.2 %	13.3 %	14.2 %	14.7 %	13.0 %	13.9 %	14.2 %
Depreciation of fixed assets	15.2	19.5	23.1	24.5	25.2	25.9	26.6
EBITA	34.2	30.6	30.7	37.6	37.6	44.7	48.7
Amortisation of intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	34.2	30.6	30.7	37.6	37.6	44.7	48.7
Margin	9.1 %	8.1 %	8.1 %	8.9 %	7.8 %	8.8 %	9.2 %
EBIT adj.	34.2	30.6	30.7	37.6	37.6	44.7	48.7
Interest income	0.2	0.1	0.0	0.0	0.5	0.1	0.1
Interest expenses	2.4	2.7	2.1	1.5	1.7	1.6	1.1
Other financial income (loss)	0.0	<b>-</b> 2.5	-1.4	0.4	-1.0	-1.1	-1.1
EBT	32.0	25.5	27.2	36.5	35.4	42.1	46.
Margin	8.5 %	6.8 %	7.2 %	8.6 %	7.3 %	8.3 %	8.8 %
Total taxes	9.1	7.3	7.3	8.7	9.9	11.8	13.0
Net income from continuing operations	22.8	18.1	19.9	27.8	25.5	30.3	33.
Income from discontinued operations (net of tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income before minorities	22.8	18.1	19.9	27.8	25.5	30.3	33.
Minority interest	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Net income	22.7	18.0	19.7	27.6	25.3	30.2	33.3
Margin	6.0 %	4.8 %	5.2 %	6.5 %	5.2 %	6.0 %	6.3 %
Number of shares, average	10.2	10.2	10.2	10.1	10.1	10.1	10.1
EPS	2.23	1.77	1.94	2.72	2.50	2.98	3.29
EPS adj.	2.23	1.77	1.94	2.72	2.50	2.98	3.29
*Adjustments made for: Restructuring costs, value adjustn	nents one-off ear	nings/losses					

Guidance: FY 2021: EBITDA of EUR 60-68m

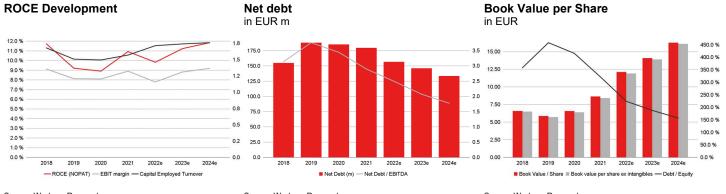
Financial Ratios								
	2018	2019	2020	2021	2022e	2023e	2024e	
Total Operating Costs / Sales	61.4 %	57.5 %	54.4 %	59.1 %	60.2 %	59.5 %	59.4 %	
Operating Leverage	2.3 x	-46.3 x	0.5 x	2.0 x	0.0 x	3.7 x	2.0 x	
EBITDA / Interest expenses	20.2 x	18.3 x	25.1 x	41.6 x	37.4 x	45.3 x	69.2 x	
Tax rate (EBT)	28.6 %	28.8 %	27.0 %	24.0 %	28.0 %	28.0 %	28.0 %	
Dividend Payout Ratio	40.1 %	42.1 %	39.4 %	36.5 %	39.8 %	36.8 %	33.3 %	
Sales per Employee	761,221,489	223,112	n.a.	n.a.	n.a.	n.a.	n.a.	





Consolidated balance sheet							
In EUR m	2018	2019	2020	2021	2022e	2023e	2024
Assets							
Goodwill and other intangible assets	0.9	1.5	1.8	2.3	2.1	1.9	1.7
thereof other intangible assets	0.9	1.5	1.8	2.3	2.1	1.9	1.7
thereof Goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Property, plant and equipment	144.3	175.5	183.6	186.5	191.5	196.7	202.1
Financial assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other long-term assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fixed assets	145.1	177.0	185.4	188.8	193.6	198.6	203.8
Inventories	78.9	74.6	67.4	86.7	99.9	103.3	106.3
Accounts receivable	34.4	32.5	33.1	40.8	48.7	51.1	53.4
Liquid assets	12.9	9.1	17.1	8.3	7.8	7.9	8.2
Other short-term assets	42.4	49.4	51.3	53.0	54.1	55.9	57.5
Current assets	168.4	165.6	168.9	188.8	210.5	218.1	225.4
Total Assets	313.6	342.6	354.3	377.7	404.0	416.7	429.3
Liabilities and shareholders' equity							
Subscribed capital	101.8	101.8	101.8	101.8	101.8	101.8	101.8
Capital reserve	-4.2	-5.0	-4.2	-1.7	2.5	4.9	7.6
Retained earnings	-25.4	-30.7	-25.5	-10.3	15.4	30.0	46.2
Other equity components	-5.2	-6.3	-5.2	-2.1	3.2	6.2	9.5
Shareholders' equity	67.0	59.8	66.9	87.6	122.8	142.8	165.0
Minority interest	1.4	1.6	1.8	1.9	2.0	2.1	2.2
Total equity	68.4	61.4	68.7	89.6	124.8	144.9	167.2
Provisions	131.4	158.8	168.9	167.3	149.9	154.0	157.6
thereof provisions for pensions and similar obligations	110.0	134.6	141.8	140.0	120.0	123.0	125.7
Financial liabilities (total)	57.9	62.7	60.7	48.0	44.6	31.1	16.0
Short-term financial liabilities	25.4	11.9	12.7	10.5	8.5	8.8	8.0
Accounts payable	30.9	24.1	20.9	32.8	42.5	44.6	46.6
Other liabilities	25.0	35.7	35.1	39.9	42.2	42.1	41.9
Liabilities	245.2	281.2	285.6	288.1	279.2	271.8	262.1
Total liabilities and shareholders' equity	313.6	342.6	354.3	377.7	404.0	416.7	429.3

Financial Ratios							
	2018	2019	2020	2021	2022e	2023e	2024e
Efficiency of Capital Employment							
Operating Assets Turnover	1.7 x	1.5 x	1.4 x	1.5 x	1.6 x	1.7 x	1.7 x
Capital Employed Turnover	1.7 x	1.5 x	1.5 x	1.6 x	1.7 x	1.7 x	1.8 x
ROA	15.6 %	10.2 %	10.6 %	14.6 %	13.1 %	15.2 %	16.4 %
Return on Capital							
ROCE (NOPAT)	11.7 %	9.2 %	8.9 %	10.9 %	9.8 %	11.2 %	11.8 %
ROE	37.0 %	28.4 %	31.1 %	35.7 %	24.1 %	22.7 %	21.7 %
Adj. ROE	37.0 %	28.4 %	31.1 %	35.7 %	24.1 %	22.7 %	21.7 %
Balance sheet quality							
Net Debt	155.0	188.3	185.4	179.8	156.8	146.3	133.6
Net Financial Debt	45.1	53.6	43.6	39.8	36.8	23.3	7.8
Net Gearing	226.7 %	306.8 %	270.0 %	200.7 %	125.6 %	100.9 %	79.9 %
Net Fin. Debt / EBITDA	91.3 %	107.1 %	81.1 %	64.1 %	58.6 %	33.0 %	10.4 %
Book Value / Share	6.6	5.9	6.6	8.6	12.1	14.1	16.3
Book value per share ex intangibles	6.5	5.7	6.4	8.4	11.9	13.9	16.1

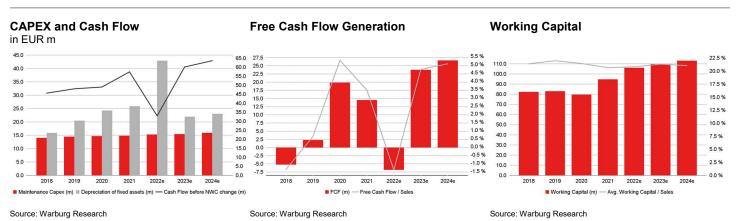


Source: Warburg Research Source: Warburg Research Source: Warburg Research



Consolidated cash flow statement							
In EUR m	2018	2019	2020	2021	2022e	2023e	2024e
Net income	22.8	18.1	19.9	27.8	25.5	30.3	33.5
Depreciation of fixed assets	15.9	20.5	24.3	25.9	42.9	22.0	23.0
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	-0.7	-1.0	-1.2	-1.4	-17.7	3.9	3.5
Increase/decrease in long-term provisions	-0.7	-1.0	-1.2	-1.4	-17.7	3.9	3.5
Other non-cash income and expenses	8.3	11.4	7.2	6.6	0.0	0.0	0.0
Cash Flow before NWC change	45.6	48.0	49.0	57.4	33.0	60.1	63.6
Increase / decrease in inventory	-5.3	2.4	5.3	-16.5	-13.2	-3.4	-3.0
Increase / decrease in accounts receivable	<b>-</b> 5.9	-7.1	-5.8	1.8	-8.9	-4.3	-3.9
Increase / decrease in accounts payable	0.0	0.0	0.0	0.0	0.3	0.1	0.1
Increase / decrease in other working capital positions	0.3	0.3	0.2	0.3	12.0	2.1	1.7
Increase / decrease in working capital (total)	-10.9	-4.4	-0.3	-14.4	-9.9	-5.5	-5.1
Net cash provided by operating activities [1]	34.7	43.6	48.7	43.0	23.2	54.7	58.5
Investments in intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Investments in property, plant and equipment	-40.1	-41.4	-28.8	-28.5	-30.0	-30.9	-31.8
Payments for acquisitions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial investments	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from asset disposals	0.2	0.1	0.0	0.1	0.0	0.0	0.0
Net cash provided by investing activities [2]	-39.9	-41.3	-28.8	-28.5	-30.0	-30.9	-31.8
Change in financial liabilities	16.5	4.8	-1.9	-12.7	-3.4	-13.5	-15.1
Dividends paid	-11.3	-9.3	-7.8	-8.0	-10.2	-10.2	-11.2
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.0	0.0	0.0	-1.0	0.0	0.0	0.0
Other	0.0	-1.6	-2.0	-1.9	0.0	0.0	0.0
Net cash provided by financing activities [3]	5.3	-6.2	-11.7	-23.6	-13.7	-23.7	-26.3
Change in liquid funds [1]+[2]+[3]	0.0	-3.9	8.2	-9.3	-20.5	0.1	0.3
Effects of exchange-rate changes on cash	0.0	0.1	-0.1	0.3	0.0	0.0	0.0
Cash and cash equivalent at end of period	12.9	9.1	17.1	8.3	7.8	7.9	8.2

Financial Ratios							
	2018	2019	2020	2021	2022e	2023e	2024e
Cash Flow							
FCF	-5.2	2.3	19.9	14.5	-6.8	23.8	26.7
Free Cash Flow / Sales	-1.4 %	0.6 %	5.2 %	3.4 %	-1.4 %	4.7 %	5.0 %
Free Cash Flow Potential	26.2	25.8	30.4	38.9	36.6	42.3	45.2
Free Cash Flow / Net Profit	-23.1 %	12.8 %	100.9 %	52.7 %	<i>-</i> 27.0 %	78.9 %	80.0 %
Interest Received / Avg. Cash	1.6 %	1.1 %	0.1 %	0.0 %	6.2 %	0.9 %	0.9 %
Interest Paid / Avg. Debt	4.9 %	4.5 %	3.5 %	2.7 %	3.6 %	4.1 %	4.6 %
Management of Funds							
Investment ratio	10.7 %	11.0 %	7.6 %	6.8 %	6.2 %	6.1 %	6.0 %
Maint. Capex / Sales	3.7 %	3.9 %	3.9 %	3.5 %	3.2 %	3.0 %	3.0 %
Capex / Dep	264.2 %	212.3 %	124.8 %	116.6 %	118.9 %	119.3 %	119.8 %
Avg. Working Capital / Sales	21.4 %	22.0 %	21.4 %	20.6 %	20.8 %	21.3 %	21.1 %
Trade Debtors / Trade Creditors	111.3 %	135.0 %	158.6 %	124.6 %	114.6 %	114.6 %	114.6 %
Inventory Turnover	2.0 x	1.9 x	2.0 x	2.0 x	2.1 x	2.1 x	2.1 x
Receivables collection period (days)	33	32	32	35	37	37	37
Payables payment period (days)	72	62	58	70	75	75	74
Cash conversion cycle (Days)	146	161	160	151	138	135	132





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Company	Disclosure	Link to the historical price targets and rating changes (last 12 months)
Alzchem	5	http://www.mmwarburg.com/disclaimer/disclaimer_en/DE000A2YNT30.htm



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Investment recommendation: expected direction of the share price development of the financial instrument up to the given <u>price target</u> in the opinion of the analyst who covers this financial instrument.

-B-	Buy:	The price of the analysed financial instrument is expected to rise over the next 12 months.
-H-	Hold:	The price of the analysed financial instrument is expected to remain mostly flat over the next 12 months.
-S-	Sell:	The price of the analysed financial instrument is expected to fall over the next 12 months.
<b>"_</b> "	Rating suspended:	The available information currently does not permit an evaluation of the company.

WARBURG RESEARCH GMBH – ANALYSED RESEA	ARCH UNIVERSE BY RATING

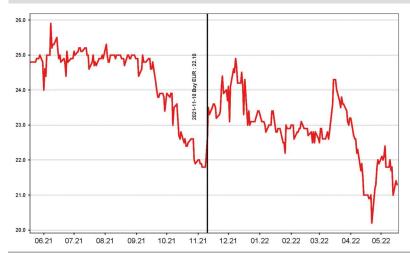
Rating	Number of stocks	% of Universe
Buy	170	80
Hold	37	17
Sell	3	1
Rating suspended	2	1
Total	212	100

#### WARBURG RESEARCH GMBH - ANALYSED RESEARCH UNIVERSE BY RATING ...

... taking into account only those companies which were provided with major investment services in the last twelve months.

Rating	Number of stocks	% of Universe
Buy	50	86
Hold	6	10
Sell	0	0
Rating suspended	2	3
Total	58	100

#### PRICE AND RATING HISTORY ALZCHEM AS OF 18.05.2022



Markings in the chart show rating changes by Warburg Research GmbH in the last 12 months. Every marking details the date and closing price on the day of the rating change.



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