

India
REDUCE (previously HOLD)

Consensus ratings*: Buy 1 Hold 1 Sell 2

Current price:	Rs1,225
Target price:	Rs1,073
Previous target:	Rs1,073
Up/downside:	-12.4%
InCred Research / Consensus:	-30.4%
Reuters:	ASTE.NS
Bloomberg:	ASTEL IN
Market cap:	US\$331m
	Rs24,010m
Average daily turnover:	US\$0.7m
	Rs51.8m
Current shares o/s:	19.6m
Free float:	34.8%

*Source: Bloomberg



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	(15.1)	(29.1)	(26.6)
Relative (%)	(10.6)	(24.8)	(27.0)

Major shareholders	% held
Promoter & Promoter Group	65.2
ICICI Prudential Asset Mgt	2.7
Tata Asset Mgt	1.8

Astec Lifesciences Ltd

What are we paying for?; REDUCE

- The existing business of Astec is stagnating as it is primarily dependent on SBI-azoles group of fungicides. Company's new capex plan can generate incremental Rs7.3bn revenue in a likely case & EBITDA can double by FY28F.
- Please note that the proposed capex (Source: EC document) embarks venturing into new unexplored areas such as API intermediates of central nervous system (CNS) drugs. Going by Ami Organics' example, it's not an easy area to break into and more so for a generic agrochemical manufacturer.
- In our view, Astec trades at 12x its best-case FY28F EPS. Given the uncertainty around the chemicals, this EPS achievement can be further delayed as well. Tread with caution as too many expectations are built into the stock price. Downgrade rating on the stock to REDUCE (from HOLD earlier).

New capex mostly planned in generic & stagnant agrochemicals

Astec Lifesciences' environmental clearance or EC document, which is available on the [Ministry of Environment's website](#), indicates that the company is planning to expand its production capacity by 26,700t. While almost 80% of the expansion is in generic agrochemicals for which the company may be planning to go for an outsourcing contract, the remaining 20% is for making specialized API intermediates for CNS and other specialized chemicals. Most agrochemicals are very small in market size where the full utilization of Astec Lifesciences' capacity will be a challenge (fentrazamide, mesosulfuron, pyridalyl, telutrin, imibenconazole, bifenazate, tribenuron imazethapyr etc.). Molecules that register significant sales (in tonnes where the company can utilize its full capacity) are azoxystrobin, thiamethoxam, pyraclostrobin, etc. On an overall basis, agrochemicals can lead to incremental sales of Rs6bn over the next five-to-six years. Apart from azoxystrobin, most of the other agrochemicals are stagnant and hence, are ripe for outsourcing but none of these molecules are growth molecules like 'Pyroxasulfone' in case of PI Industries. Interestingly, Astec Lifesciences is also setting up a 180t (6% of current market) pyroxasulfone capacity, but we doubt whether it will be able to make any dent on PI's Industries' dominance.

Central nervous system API intermediates are just too new for Astec

Astec Lifesciences is an agrochemicals company and hence, venturing into top CNS API intermediates is a bold but risky move. To cite an example, Ami Organics shows that it takes a long time before these molecules can achieve success in customers' supply chain. 1-(4-chlorophenyl)-2-pentanone & 2-chloro-4-fluoro-5-[3-methyl-2,6-dioxo-4-(trifluoromethyl)-1,2,3,6-tetrahydropyrimidin-1-yl] benzenethiol are two such molecules. While estimating the sales of these two new molecules is very difficult, assuming a blue-sky scenario, we have estimated Rs0.2bn in sales.

Stock prices in best of all worlds; downgrade to REDUCE

Astec Lifesciences trades at 13x its best-case FY28F EPS. We downgrade it to REDUCE (from HOLD earlier). Upside risk: Liquidity-driven rally in this highly illiquid stock.

Financial Summary	Mar-20A	Mar-21A	Mar-22F	Mar-23F	Mar-24F
Revenue (Rsm)	5,226	5,549	6,766	7,143	8,014
Operating EBITDA (Rsm)	914	1,116	1,541	1,435	1,653
Net Profit (Rsm)	475	651	899	783	987
Core EPS (Rs)	26.8	33.3	45.9	40.0	50.5
Core EPS Growth	46.2%	24.3%	38.0%	33.2%	26.1%
FD Core P/E (x)	50.40	36.83	26.68	30.60	24.27
DPS (Rs)	1.5	1.5	2.8	2.5	3.1
Dividend Yield	0.15%	0.15%	0.23%	0.20%	0.25%
EV/EBITDA (x)	27.28	23.15	17.37	17.61	15.00
P/FCFE (x)	146.76	338.56	198.79	104.23	124.66
Net Gearing	39.4%	60.0%	69.9%	25.6%	12.9%
P/BV (x)	9.72	7.75	6.05	4.81	3.86
ROE	23.3%	23.4%	25.5%	17.6%	17.7%
% Change In Core EPS Estimates			(11.09%)	(3.47%)	
InCred Research/Consensus EPS (x)					

SOURCES: INCRED RESEARCH, COMPANY REPORTS

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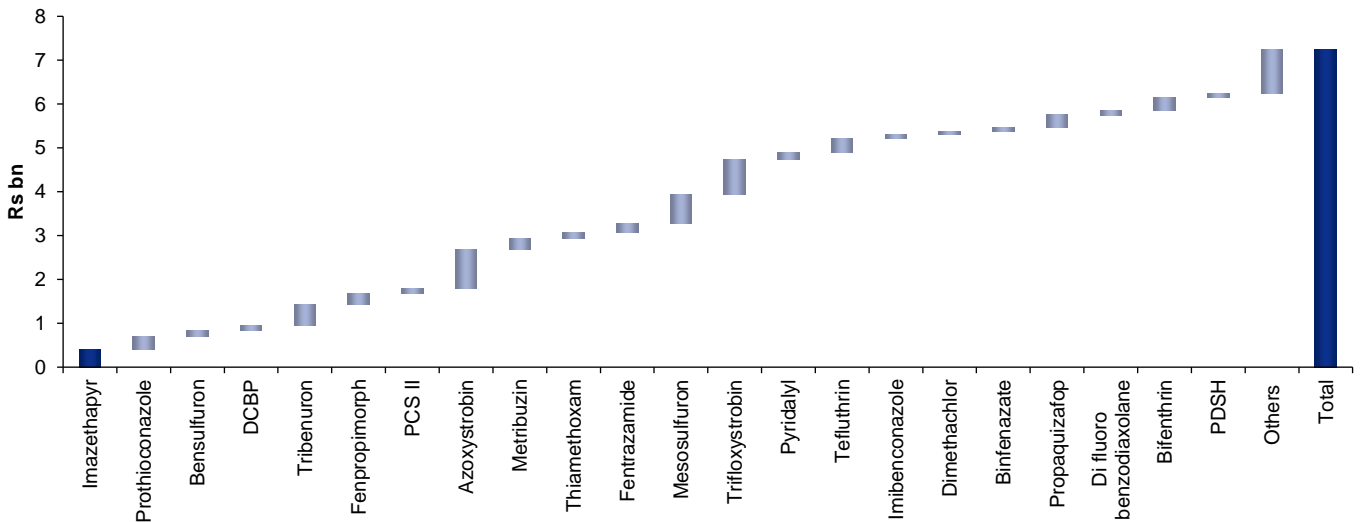
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What are we paying for?; REDUCE

Astec Lifesciences is planning to expand its capacity by 26,700t in both agrochemicals as well as API intermediates for anti-psychotic drugs. We have done a detailed analysis of all the molecules that can come for potential capacity expansion. The maximum revenue from the same, in our view, is likely to be Rs7.3 bn.

Figure 1: We feel potential revenue from the expansion project can be ~Rs7.3bn; please note that PCS-II and DCBP are central nervous system APIs and hence, exact estimates are not possible; we have used Ami Organics' growth trajectory for our sales estimates



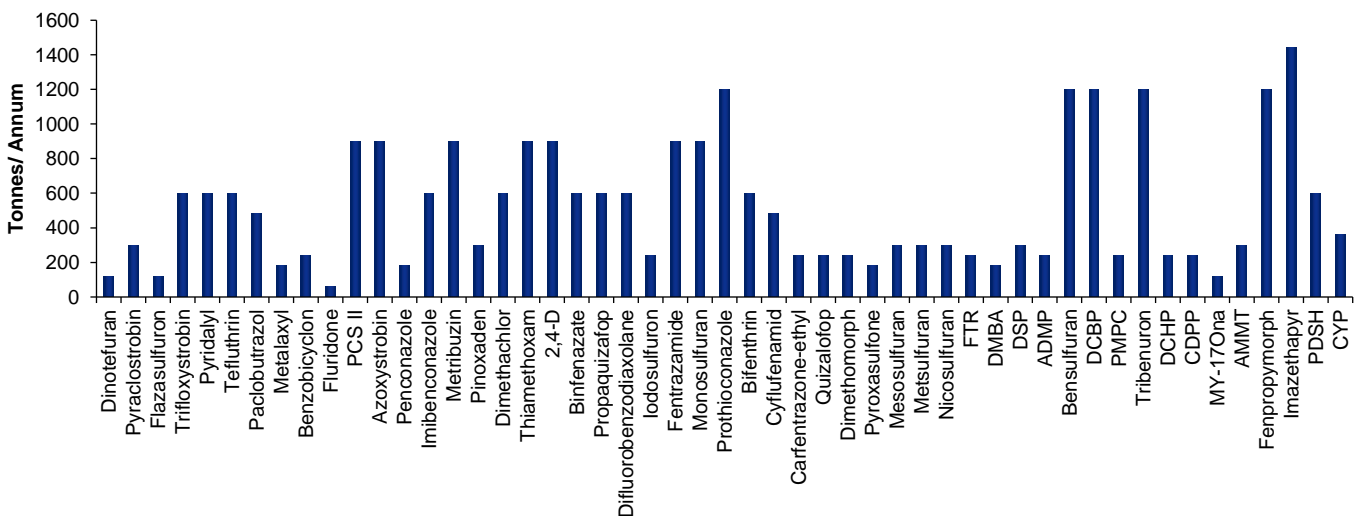
SOURCE: INCRED RESEARCH, COMPANY REPORTS

The gross margin from this revenue can be ~Rs2.8bn and incremental EBITDA at ~Rs1.4bn. So, in effect, by FY27F-28F we can expect EBITDA at ~Rs2.8-2.9bn and EPS at Rs~100.

Proposed expansion is in generic agrochemicals and intermediates

Astec Lifesciences planning to set up 26,700t of new capacity in various agrochemicals and intermediates ➤

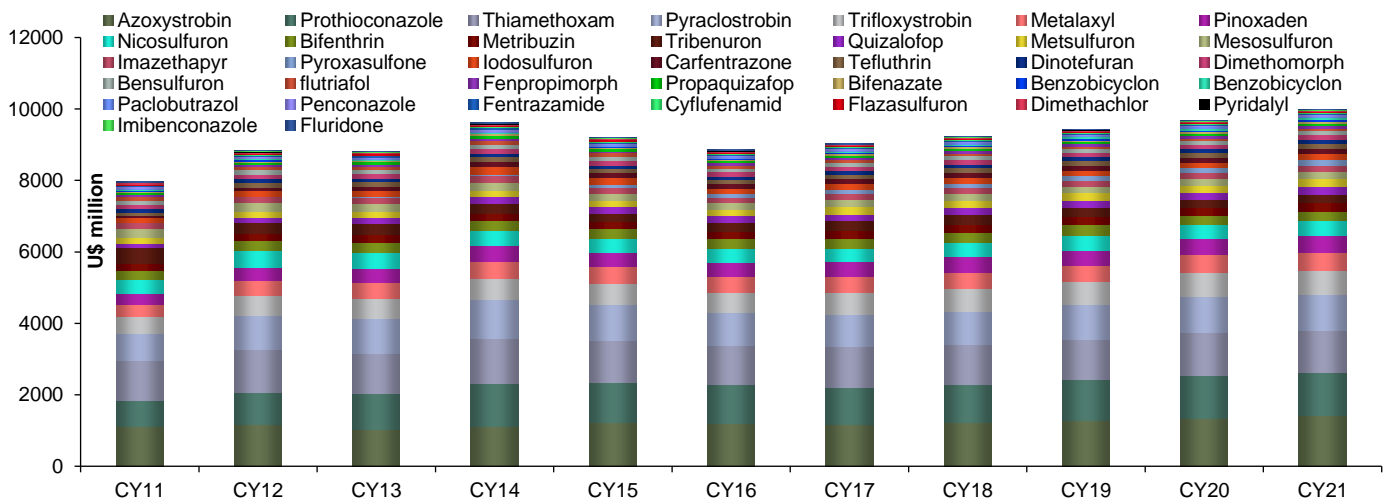
Figure 2: The overall new capacity planned is 26,700t



SOURCE: INCRED RESEARCH, COMPANY REPORTS

The planned agrochemicals business expansion is in generic molecules having anaemic growth

Figure 3: Overall sales growth in new agrochemicals (Astec Lifesciences is planning to set up new capacity for these molecules) has been ~2% over the last decade



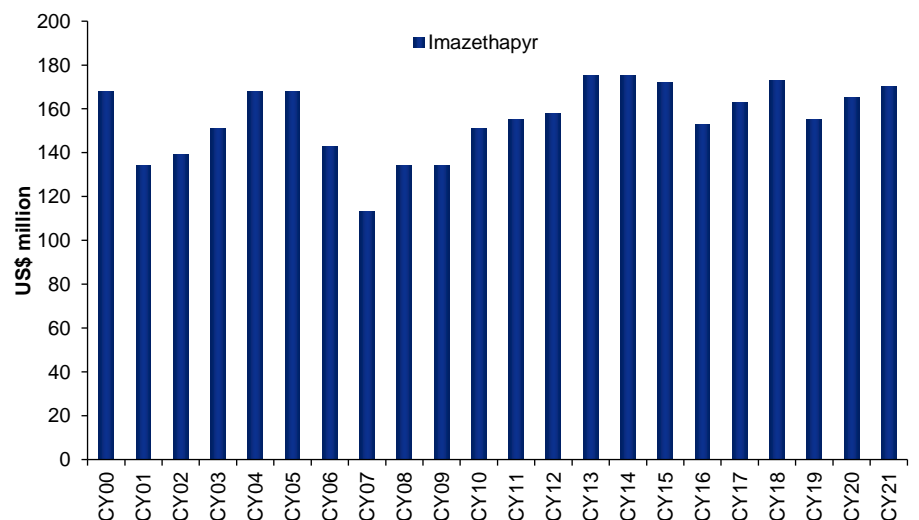
SOURCE: COMPANY REPORTS, INCRED RESEARCH

Out of all the molecules, Astec Lifesciences is planning to have highest capacity (1,440t) in imazethapyr herbicide, which is a pure generic

Imazethapyr herbicide was commercialized in 1987 and it went out of patent in 2002. BASF was the innovator of the chemical. However, Adama and Nortox are also significant producers of this molecule.

At one time it was a leading soybean herbicide worldwide, although its sales were impacted by the uptake in Roundup Ready (RR) soybean. Its recent growth has been driven by good acceptance of a co-formulation with a glyphosate, Extreme, for use on RR soybean. The market share capture by seed+herbicide manufacturers led to a decline in its overall sales, and in last 21 years its sales growth was 0%.

Figure 4: In last 21 years, sales growth of imazethapyr herbicide was 0%; the Roundup Ready seed revolution by Monsanto led to stagnancy in all other herbicides apart from glyphosate

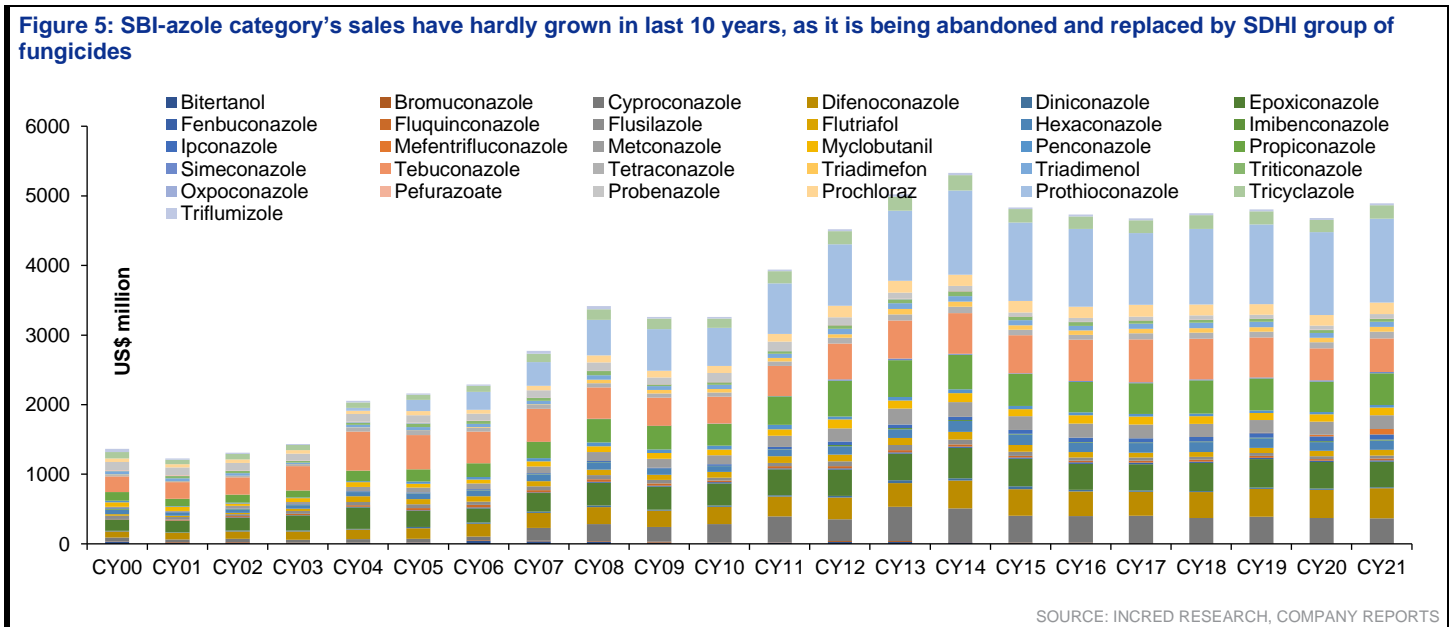


SOURCE: COMPANY REPORTS, INCRED RESEARCH

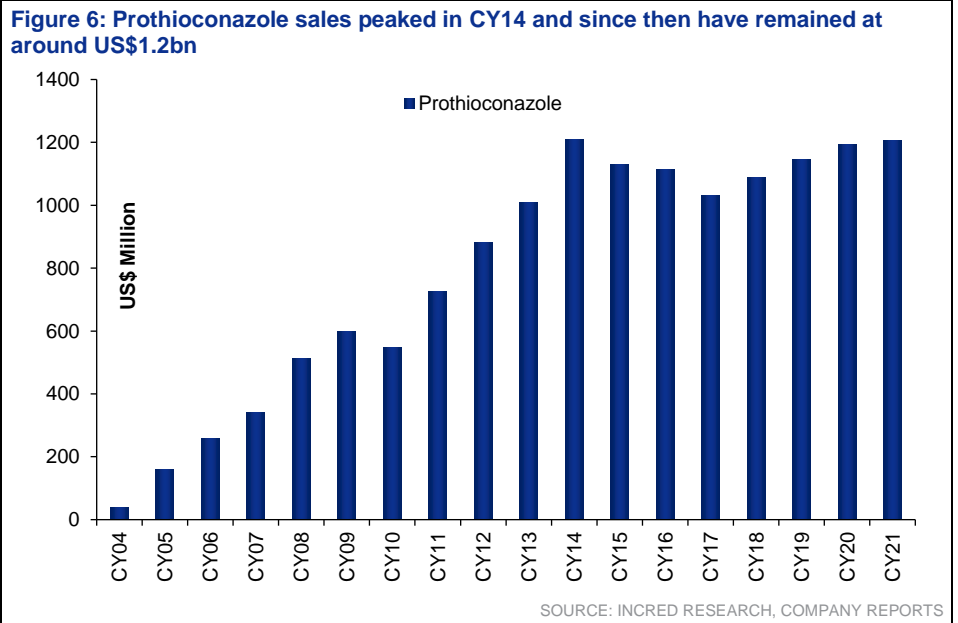
While imazethapyr capacity is 1,440t, it's unlikely that Astec Lifesciences can even use 10% of this capacity ➤

1. On an average, selling price of imazethapyr in CY22 was Rs6,500/kg or ~ US\$80/kg.
2. At this rate, 100% capacity utilization of Astec Lifesciences' capacity can generate US\$120m in revenue, which will be approximately 70% of overall imazethapyr's global sales.
3. There are multiple manufacturers like BASF, Adama, Nortex, Dhanuka, Insecticides, Helm Agro USA, Corteva Agrosiences, FMC and many Chinese players.
4. Given this high capacity, it's unlikely that Astec Lifesciences can even use 10% of its capacity.
5. In our view, likely revenue generation from this can be ~Rs0.41bn.

Astec Lifesciences' another planned capacity is for prothioconazole, which belongs to the stagnant SBI-azole category ➤



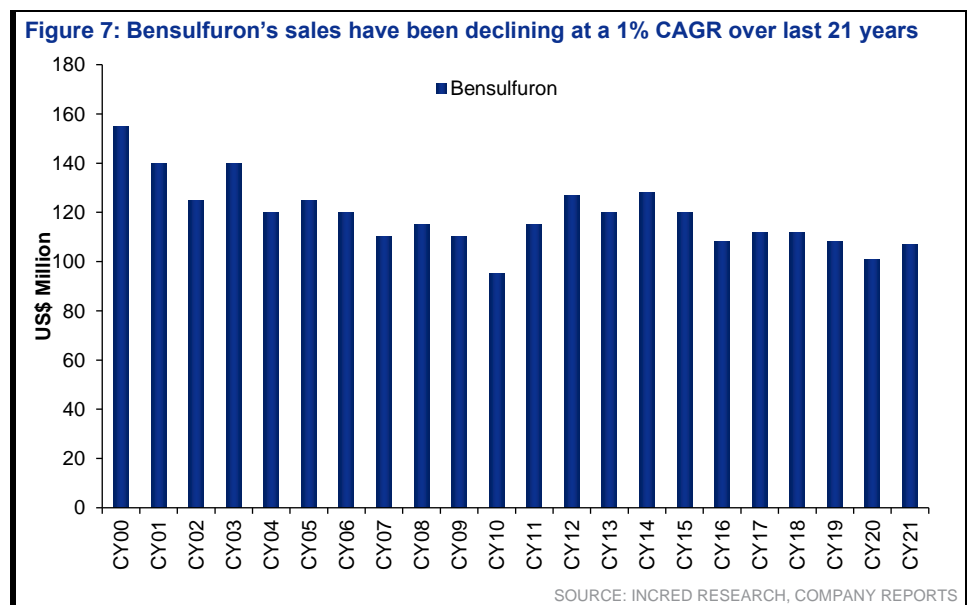
Even prothioconazole sales have gone nowhere in past few years ➤



But given low capacity (0.6% of global sales) it’s possible for Astec Lifesciences to utilize 100% of its capacity and garner Rs 0.28bn in sales ➤

Based on India average export price (US\$5/kg) in 2022, global demand for prothioconazole is ~2,40,000t. This means 100% utilization of 1,440t capacity, and Astec Lifesciences must garner a 0.6% market share from the existing players. This seems quite possible and revenue for Astec Lifesciences can be ~US\$3.6m or ~ Rs0.28bn.

Bensulfuron (planned capacity is 1,200t) sales are declining over last two decades ➤



Given CY21 import prices in India, global sales appear to be ~ 3,000t ➤

Global sales of bensulfuron stood at US\$107m in CY21 and its average price was ~ US\$35/kg. Hence, its market size appears to be 3,000t.

Competition for the product is intense; UPL has the rights outside Asia while Kumiai has the rights in Asia ➤

The competition in this market is intense. This product was commercialized in 1984 and turned off-patent in 1999. The innovator of this molecule is DuPont (now Dow-DuPont). Many other Chinese companies manufacture this molecule, and it is used primarily as a rice herbicide in Japan.

1. At one time, bensulfuron was one of the largest-selling sulfonylurea herbicides and the leading rice herbicide worldwide.
2. The product is still the cornerstone of many of the leading 'one-shot' rice herbicides in Japan.
3. Marketing covers most rice-growing nations, although sales are in a phase of decline, exacerbated by the reduction in Japan's rice acreage and increased competition from new launches. Some competition from the generic material from China has also been witnessed.
4. The rights for this molecule outside Asia were acquired by UPL from DuPont in 2006.
5. In Sep 2019, it was announced that Kumiai will acquire Corteva's bensulfuron-methyl business in the Asia Pacific region, excluding China.

As per our estimate, PI Industries has a better chance on this molecule than Astec Lifesciences ➤

Given the close relationship that PI Industries has with Kumiai, we expect PI Industries to have a better chance to bag a significant outsourcing contract for this molecule than Astec Lifesciences. However, the best possible revenue is Rs0.15bn.

Dichloro butyrophenone or DCBP (planned capacity is 1,200t) is an antipsychotic medication, a field of Ami Organics ➤

Dichloro butyrophenone (also known as haloperidol) is a medication that belongs to the class of antipsychotic drugs. It is primarily used to treat various psychiatric disorders, including schizophrenia, acute psychosis, manic episodes in bipolar disorder, and Tourette syndrome.

Haloperidol works by blocking certain receptors in the brain, which reduces the activity of certain neurotransmitters, such as dopamine. This leads to a decrease in psychotic symptoms, such as hallucination, delusion, and disorganized thinking.

In addition to its psychiatric uses, haloperidol may also be used to treat severe agitation and aggression, particularly in hospital or emergency settings. It may also be used in combination with other medications to treat nausea and vomiting in certain situations.

Dichloro butyrophenone's global market size is ~US\$70m and the main market is USA ➤

A 10mg tablet of haloperidol fetches a price of ~US\$0.20. On this basis, the overall market for haloperidol is ~1,000kg globally (linear extrapolation gives a market size of 350kg; while linear extrapolation is not the right way to do so for the bulk market, at least it gives a broad idea of the market).

Given its agrochemicals background, going in for haloperidol will be a big thing and not easy to achieve but still in a best - case scenario, it may garner Rs0.1bn in revenue ➤

Astec Lifesciences has no experience of handling APIs (active pharmaceutical ingredients) and directly manufacturing haloperidol is a big task. The probability of its success is extremely low, in our view. In any case, to arrive at a best-case sales scenario, we have assumed sales Rs0.1bn in sales for Astec Lifesciences.

PCS-II or 1-(4-chlorophenyl)-2-pentanone is an intermediate of drugs for central nervous system (CNS) ➤

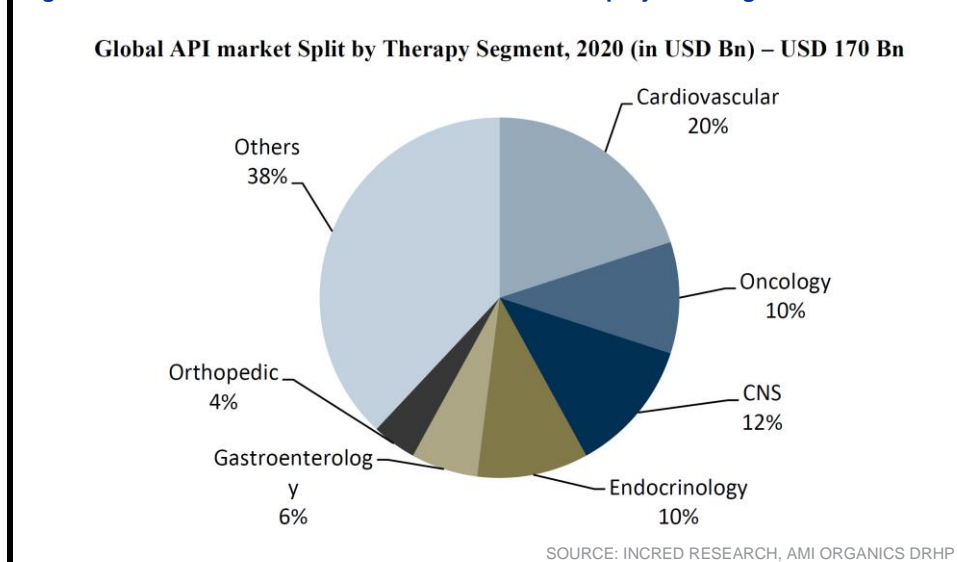
1-(4-chlorophenyl)-2-pentanone, also known as 4-chloro- α,α -dimethylphenethyl acetone or 4-CDMA, is a chemical compound that can have various usages, depending on the specific application.

In pharmaceutical industry, 1-(4-chlorophenyl)-2-pentanone can be used as a building block for the synthesis of other compounds, particularly in the development of central nervous system (CNS) drugs. It has been used as an intermediate in the synthesis of drugs such as Nefopam, which is a non-opioid analgesic used for the relief of moderate to severe pain.

1-(4-chlorophenyl)-2-pentanone is also a controlled substance and is listed as a precursor chemical for the production of illicit drugs such as amphetamines and methamphetamines. Due to its potential for abuse, 1-(4-chlorophenyl)-2-pentanone is strictly regulated in many countries, and its use is closely monitored by law enforcement agencies.

Global sales of CNS API at US\$20bn (Source: Ami Organics' DRHP) ➤

Figure 8: Global sales of CNS API at US\$20bn and are projected to grow at a 9% CAGR



It's a good area to be in but as of now, determining potential sales is very difficult for us. Using Ami Organics' experience with such medication, may be Astec Lifesciences can start small at Rs0.1bn and can grow its revenue over time.

Even PDSH (2-chloro-4-fluoro-5-[3-methyl-2,6-dioxo-4-(trifluoromethyl)-1,2,3,6-tetrahydropyrimidin-1-yl]benzenethiol) is an intermediate of CNS drugs ➤

Making of PDSH is multi-step process and it's used as CNS drug intermediate as well. Since it is a controlled substance, we don't know the market size. However, going by Ami Organics' experience in these kinds of drugs, we estimate that initial sales of these molecules can be anywhere between Rs0.1-0.2bn.

Difluorobenzodioxolane is a multi-purpose compound ➤

Difluorobenzodioxolane is a compound that can be used for various purposes. Here are some of its known uses:

1. Chemical synthesis: Difluorobenzodioxolane can be used as a reagent in chemical synthesis reactions to introduce fluorine atoms into molecules.
2. Pharmaceutical research: The compound has been studied as a potential scaffold for the development of new drugs, particularly those with antiviral or anticancer properties.

- Fluorine-18 labelling: Difluorobenzodioxolane can be labelled with the radioactive isotope fluorine-18, which is used in positron emission tomography (PET) imaging in medical diagnosis.
- Material science: Difluorobenzodioxolane has been used as a building block for the synthesis of novel polymers and materials.

Difluorobenzodioxolane market is small as its prices are quite high >

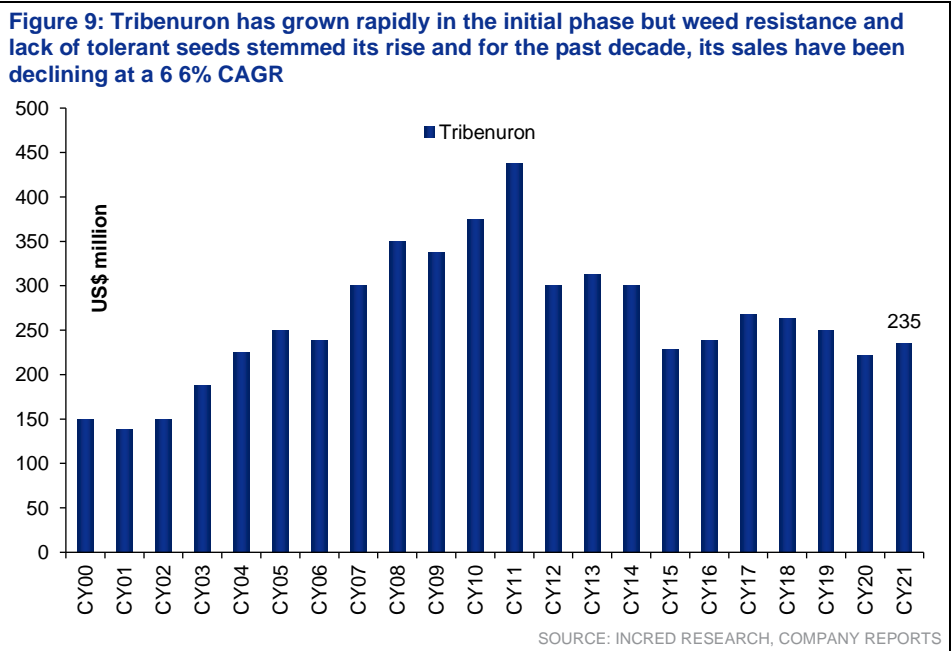
The price of difluorobenzodioxolane can vary depending on several factors such as the purity, quantity, and the supplier. The price of difluorobenzodioxolane ranges from approximately US\$100 to US\$500 per gram, depending on the supplier and the quantity purchased. It is important to note that prices may vary over time and between suppliers, and so it is best to check with chemical suppliers directly for up-to-date pricing information.

600t difluorobenzodioxolane sales not possible, may be the company can garner US\$2-3m in sales initially >

Initial potential sales, in our view, can be Rs0.1-0.15bn.

Tribenuron (planned capacity is 1,200t) is another herbicide of DuPont which hasn't shown any growth in past few years >

Tribenuron is a short-persistence selective sulfonylurea herbicide for the control of broad-leaved weeds in cereals, mainly used in combination with other sulfonylureas and with metribuzin. The product has received full Annex 1 re-registration in the EU but sales in the region have been affected by competitive launches, with China now the most significant country market.



Given the high price of US\$100/kg, this product registers only 2,400t in sales >

CY21 sales of the product stood at US\$235m and hence, overall sales volume is limited to 2,400t. We still don't understand why Astec Lifesciences is planning to install 1,200t capacity.

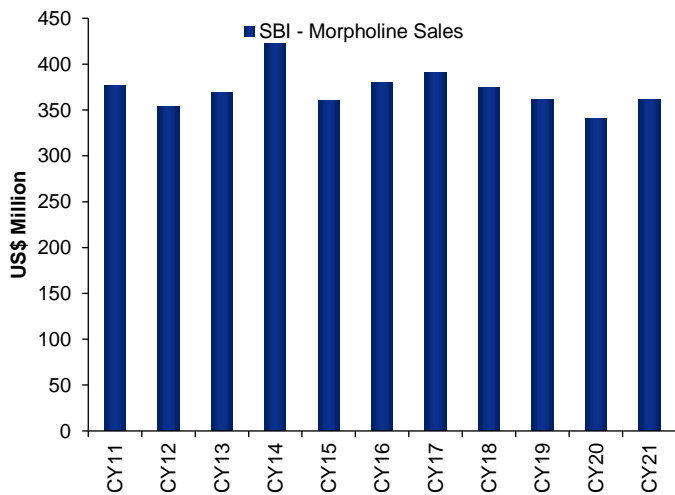
Is there a chance of big outsourcing contract for Astec Lifesciences for tribenuron? Unlikely, in our view, but the best-case sales can be Rs0.5bn >

While DuPont (now Dow-DuPont) is the innovator of the chemical, in the recent past most of the market share has been taken up by Chinese companies. While

DuPont may give a part of the contract to Astec Lifesciences, any significant contract is unlikely. But to estimate a best-case scenario for Astec Lifesciences, we can assume 250t in sales, which means the company will garner 17% market share and can post a revenue of Rs0.5bn.

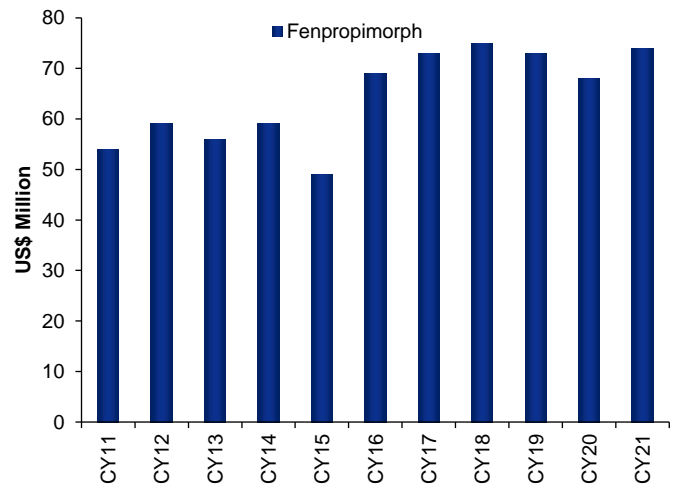
Fenpropimorph belongs to the SBI-morpholine group of fungicides; SBI-morpholine has gone nowhere since the last decade while fenpropimorph’s growth is miniscule ➤

Figure 10: SBI-morpholine’s sales stagnant since the last decade and, in fact, declining at a 0.6% CAGR



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 11: Fenpropimorph’s sales are comparatively better but growth is miniscule, at a 3% CAGR



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Fenpropimorph’s patent expired in 1995 and because of health concerns, some countries have banned it ➤

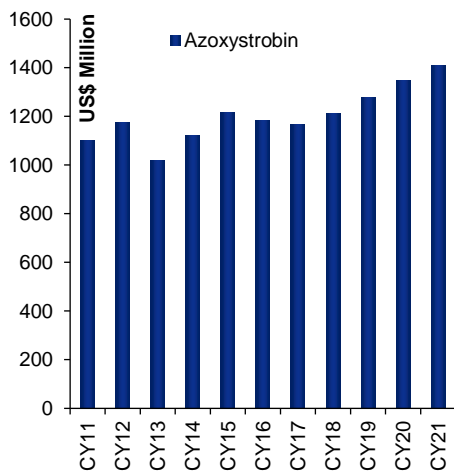
1. BASF is the principal manufacturer of the fungicide whose patent expired in 1995.
2. Morpholine offers curative control of powdery mildew in cereals. It is widely used in many mixture formulations, notably with strobilurins and triazoles. Sales have been affected by more recently introduced competitive products as well as generic competition.
3. Introduced as a wood preservative as Wolsin in USA. Re-registration in the EU has been achieved, with approval extended until the end of Apr 2019. In 2017, BASF launched Versatilis (fenpropimorph) in Brazil for the control of soybean rust; the product label was later expanded for its use on bananas in the country.
4. In Aug 2020, Turkey issued phase-out dates for 16 pesticide active ingredients, including fenpropimorph. Import ban imposed on 30 Jun 2020.

Estimating fenpropimorph’s sales of Astec Lifesciences is like shooting in the dark, but it may garner a 5-10% market share ➤

One can take a guess that Astec Lifesciences may be able to sell US\$7m worth of fungicides over the next few years. In INR terms, overall sales can be Rs0.25 bn.

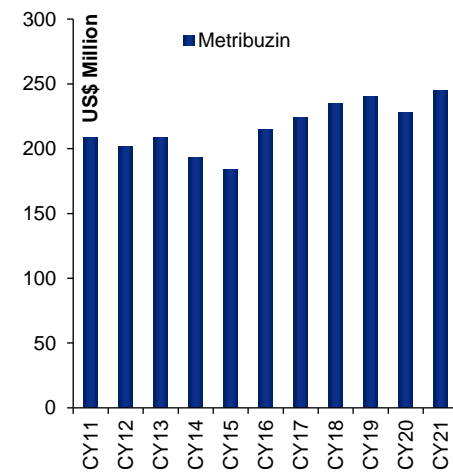
Azoxystrobin, metribuzin and thiamethoxam - these are highly competitive generic pesticides ➤

Figure 12: Azoxystrobin sales have been increasing @ 3% CAGR



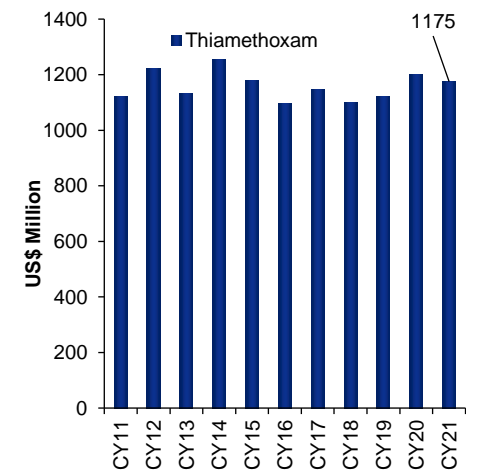
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 13: Metribuzin sales have been increasing @ 2% CAGR



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 14: Thiamethoxam sales have been stagnant



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Azoxystrobin - we expect Rs0.90bn in revenue for Astec Lifesciences

1. Broad-spectrum Strobilurin fungicide is now the leading fungicide globally. Major crop markets include soybean, F&V, cereals, rice, maize and potato.
2. There are multiple companies present in the generic space as its patent expired in 2012.
3. As of now, multiple companies are present in the space which includes Syngenta (innovator), FMC, UPL and several Chinese companies.
4. Azoxystrobin is a high-priced fungicide and normally costs US\$60/kg. Based on 2021 sales, likely the likely sales volume will be around 24,000t.
5. With a 900t capacity, it is possible for Astec Lifesciences to garner a 0.4% market share.
6. On full-scale operations, we can expect Rs0.90bn in revenue from azoxystrobin operations.

Metribuzin – we expect Rs0.25bn in revenue for Astec Lifesciences

1. It is a mature cross-spectrum herbicide. Primary usage is on potato followed by soybean, although sales in the soybean sector are down from their peak level due to competition from more recently introduced products and the introduction of herbicide-tolerant varieties.
2. The product was commercialized in 1971 and its patent expired in 1986. Bayer is the innovator and as Bayer has acquired Monsanto, it has entered Bayer's Roundup ready seed program. The prices are likely to remain depressed for the chemicals.
3. There is huge competition in the market with Bayer, FMC, Adama, UPL, Rallis, Meghmani and multiple Chinese companies present.
4. It is an approximately US\$15/kg product and in this regard, the global market is ~16,000t.
5. It is possible for Astec Lifesciences to be able to utilize all 900t of its capacity at peak utilization level.
6. We can assume that metribuzin can contribute Rs0.25bn in revenue to the company.

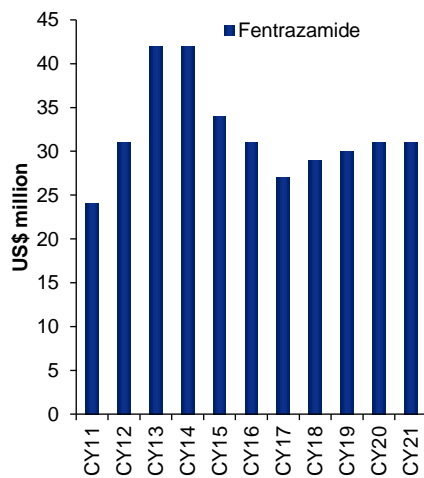
Thiamethoxam - we expect Rs0.14bn in revenue for Astec Lifesciences

1. The largest-selling neonicotinoid insecticide has significant foliar (Actara) and seed treatment (Cruiser) uses. Utilized in many mixtures in seed treatments, primarily as a component of Syngenta's Cruiser Maxx range.

- This product was launched in 1999 and its patent expired in 2014.
- Syngenta is the key manufacturer. Apart from Syngenta, it is being manufactured by Tagros, Bharat Rasayan, Punjab Chemicals, UPL, Rallis and multiple other Chinese as well as Indian companies.
- It's a cheap insecticide and costs US\$4/kg and hence, overall global sales of the same is ~300,000t.
- It's easy for Astec Lifesciences to find a market for 900t of thiamethoxam.
- One can expect a revenue of Rs0.14bn from thiamethoxam sales.

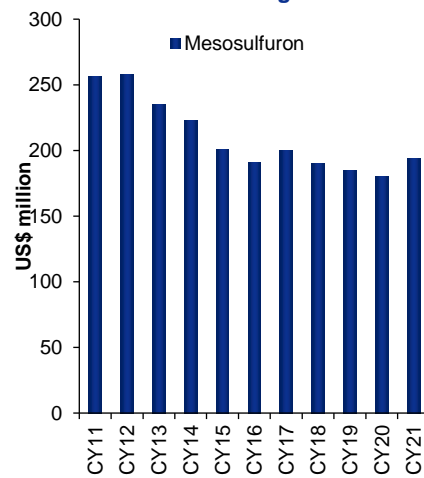
Fentrazamide, mesosulfuron, trifloxystrobin, pyridalyl, tefluthrin, imibenconazole, dimethachlor, binfenazate, propaquizafop and bifenthrin sales➤

Figure 15: Miniscule herbicide with sales at US\$31m, growing at a 3% CAGR



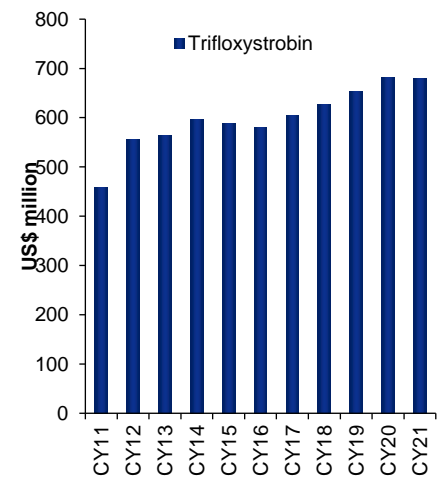
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 16: A generic herbicide whose sales are declining @3% CAGR; good candidate for outsourcing



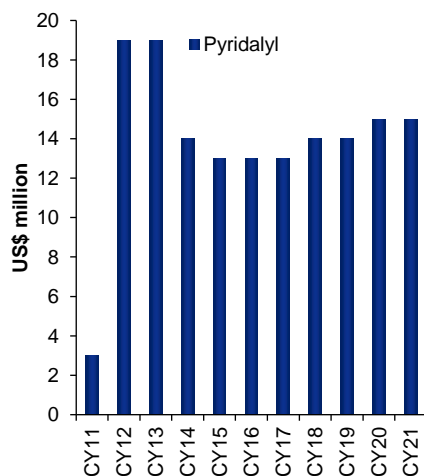
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 17: A growing molecule which has sales potential for Astec Lifesciences of ~Rs0.8bn



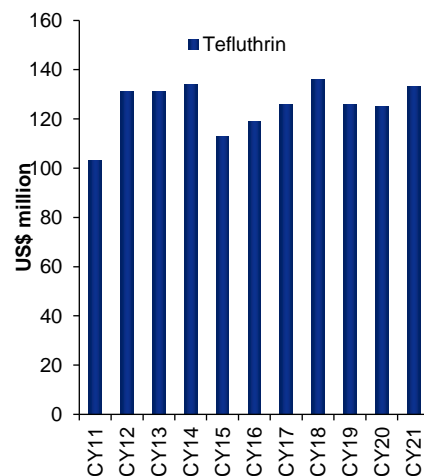
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 18: Very costly fungicide by Sumitomo, sales potential Rs 0.15bn



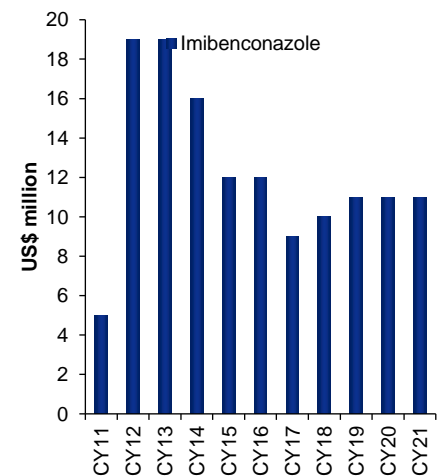
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 19: A stagnant pyrethroid group of insecticide whose sales are not growing



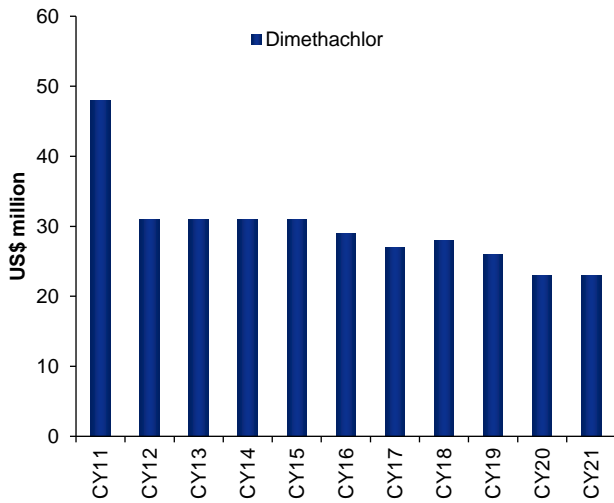
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 20: SBI-triazole group of fungicide whose sales are likely to be Rs0.1bn for Astec Lifesciences



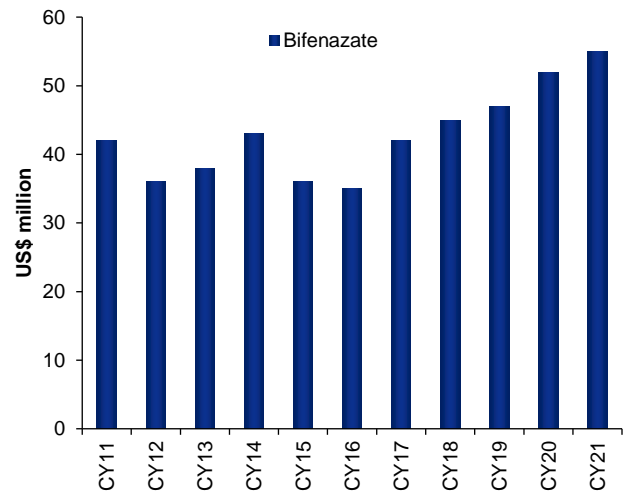
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 21: Dimethachlor is a very old and declining herbicide whose sales potential for Astec Lifesciences is ~Rs0.06bn



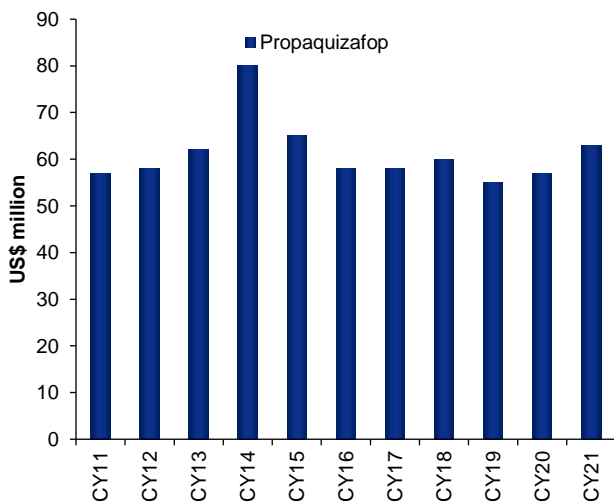
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 22: Bifenazate (insecticide) has grown @3% CAGR; UPL is the innovator; sales possibility for Astec Lifesciences is Rs0.1bn



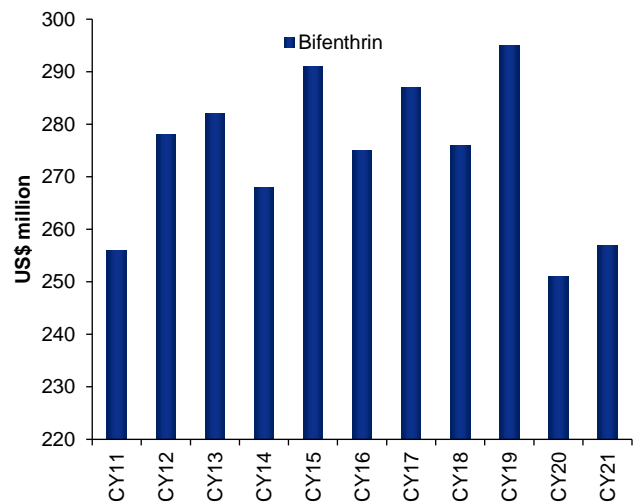
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 23: Herbicide with anaemic growth; growing at a 1% CAGR over the last decade; possible sales for Astec Lifesciences is Rs0.28bn



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 24: Belongs to a now declining pyrethroid group of insecticide; sales stagnant since the last decade; possible sales for Astec Lifesciences at Rs0.3bn



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Fentrazamide - we expect sales of not more than Rs0.20bn

1. Fentrazamide is applied in transplantation for providing broad-spectrum weed control, with long-lasting efficacy.
2. The application timing complements Bayer's seedling box fungicide and insecticide application strategy with carpropamid and imidacloprid.
3. Introduced in Thailand, Vietnam, Malaysia and the Philippines in 2000, followed by Japan in 2001 as Innova, a mixture with bensulfuron-methyl. Became one of the leading rice herbicides in South Korea, but now superseded by more recent introductions, although still used in a number of one-shot combinations in Japan.
4. In fiscal year 2018 (ended Oct 2018), Kumiai registered the product Avanti (triafalone + fenquinotrione + fentrazamide).
5. The price of this herbicide is ~US\$6-7/kg and hence, sales are limited to 5,000t globally.
6. It's very unlikely that anyone can put incremental capacity of this chemical and hence, it's possible that Astec Lifesciences can get the CSM contract for the same.

7. 600t in sales can garner not more than Rs0.20bn in revenue for Astec Lifesciences.

Mesosulfuron – likely sales at Rs0.65bn for Astec Lifesciences

1. It was developed by Aventis and is now a part of the Bayer portfolio. After initial success, this herbicide faded off and its last sales declined @3% CAGR.
2. It was introduced in 2002, mainly in mixtures with iodosulfuron in combination with the safener mefenpyr-diethyl, as Atlantis. The patent expired in 2017.
3. Main usage is for wild oat and Phalaris (canary grass) control in wheat, also suppression of brome and annual ryegrass. It has gained significant market share in the European wild oat control sector, with the product being widely used in France, the UK, Germany and Italy.
4. The average price of this herbicide has been ~US\$20/kg and on that basis, sales have been 9,700t.
5. Seeing the sales profile and prices, it's a good candidate for outsourcing and its possible for Astec Lifesciences to generate Rs0.65bn in revenue on full-scale utilization of its 600t capacity.

Trifloxystrobin - likely sales at Rs0.81bn for Astec Lifesciences

1. Trifloxystrobin was developed by Novartis and divested to Bayer on the formation of Syngenta in 2000. The product has particular strength against powdery mildew, septoria and rhynchosporium on cereals, particularly competitive in the early spray season.
2. Since then, Bayer has been very active with the fungicide and has launched multiple products based on it. The price of this fungicide is ~US\$50/kg. This means global demand for this product is ~14,000t.
3. It's a growing fungicide and more over in recent times, Bayer has been successful in marketing a mixture of this fungicide for application on soybean's Asian rust.
4. It is possible to garner a small pie (0.6%) in this growing fungicide market as an outsourcing deal.
5. One can expect a revenue of Rs0.8bn for Astec Lifesciences at full capacity utilization.

Pyridaly- likely sales at Rs0.15bn for Astec Lifesciences

1. It's a relatively costly fungicide (priced at nearly US\$130/kg).
2. Sumitomo is the innovator, and the molecule was commercialized in 2005. Patent expired in 2019.
3. It is highly active against the larvae of lepidopteran pests, including strains resistant to other insecticides. Launched in Japan, Korea, and Thailand in 2004, followed by Australia and India in 2005.
4. The global sales are only 120t, which makes it impossible for Astec Lifesciences to utilize more than 5% of its capacity. Even if it's able to utilize 5% of its capacity, it can have a 25% market share.

Tefluthrin - likely sales at Rs0.32bn for Astec Lifesciences

1. It's a pyrethroid group of insecticide which went off-patent in 2003. Key manufacturer of this molecule is Syngenta.
2. Given the nature of this chemical and stagnant sales, it becomes an idea for outsourcing.
3. The price of the chemical is quite high at US\$150/kg, which makes it a very low-volume product. Global sales are only ~900t.
4. We don't expect Astec Lifesciences to be able to use more than 10% of its capacity in this product and garner a revenue of Rs0.32bn.

Imibenconazole - likely sales at Rs0.1bn for Astec Lifesciences

1. It's a SBI-triazole group of fungicide, which is any ways stagnating.
2. The key manufacturer of this fungicide is Hokko. There are no other major manufacturers of this fungicide.
3. It appears that Bharat Rasayan is already doing toll manufacturing of this molecule for Hokko.
4. The price of this chemical is quite high at US\$200/kg, which means global sales of only 50t.
5. Astec Lifesciences will be lucky to get even a 10t contract. We have worked out 12t in sales at peak capacity utilization and arrived at a revenue of Rs0.1bn.

Dimethachlor- likely sales at Rs0.06bn for Astec Lifesciences

1. A relatively old chloroacetanilide herbicide that demonstrates good selectivity on oilseeds.
2. Dimethachlor controls annual grass weeds, including alopecurus myosuroides (black-grass), apera spica-venti and poa annua as well as some broad-leaved weeds.
3. This chemical was developed by Syngenta in 1976 and turned off- patent in 1991.
4. This molecule has registered nothing in sales in the past few years. In fact, over the last decade its sales have declined by a 7% CAGR.
5. The global sales based on 2022 price is ~7,000t. It's possible for Astec Lifesciences to garner a 10% market share in this dying herbicide and get a revenue of Rs0.06bn.

Bifenazate - likely sales at Rs0.1bn for Astec Lifesciences

1. This molecule was developed Arysta Lifesciences 1999 and turned off-patent in 2014. This is an insecticide and belongs to a broader category of acaricide.
2. Last decade's global sales grew at a 3% CAGR. However, given the size of the molecule (US\$55m), it is a pretty weak growth.
3. UPL is the leader in this chemical (after the acquisition of Arysta) and hence, there can be a chance for toll manufacturing of bifenazate for this company.
4. The average selling price of this molecule is US\$55/kg, which means by utilizing 20% capacity (12% market share), Astec Lifesciences can garner Rs0.1bn in sales.

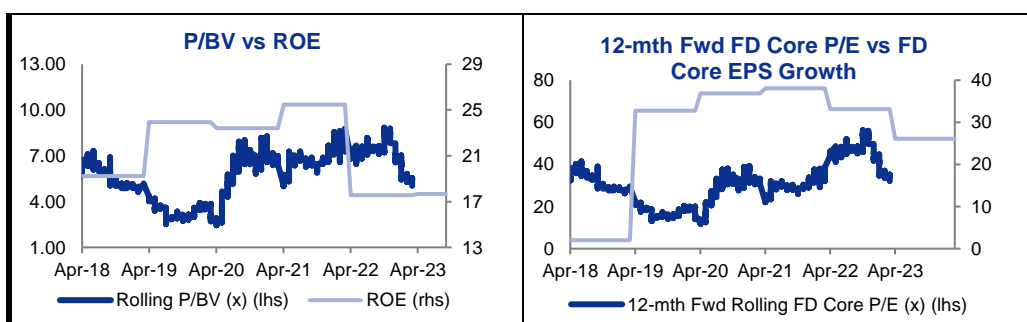
Propaquizafop - likely sales at Rs0.28bn for Astec Lifesciences

1. This herbicide was developed by Adama in 1990 and turned off-patent in 2005.
2. The herbicide's sales haven't grown much. In fact, its stagnant since the last decade (CAGR of 1%).
3. It's a relatively cheap herbicide (US\$13/kg), which is used on rape, F&V, soybean, and sugar beet.
4. Total global sales are at 4,850t and its possible that Astec Lifesciences may utilize its full capacity.
5. The overall revenue possible for Astec Lifesciences is ~Rs0.28bn.

Bifenthrin- likely sales at Rs0.3bn for Astec Lifesciences

1. It's a stagnant pyrethroid group of insecticides, which is manufactured globally by various players.
2. Key manufacturer is FMC and given the propensity of FMC to outsource, Astec Lifesciences can get the contract.
3. It's a relatively cheap insecticide at US\$30/kg. We can expect Astec Lifesciences to generate Rs0.3bn in revenue by utilizing 50% of its capacity.
4. Global sales are at ~8,000t.

BY THE NUMBERS



Profit & Loss

(Rs mn)	Mar-20A	Mar-21A	Mar-22F	Mar-23F	Mar-24F
Total Net Revenues	5,226	5,549	6,766	7,143	8,014
Gross Profit	1,841	2,128	2,898	2,588	2,885
Operating EBITDA	914	1,116	1,541	1,435	1,653
Depreciation And Amortisation	(232)	(257)	(344)	(423)	(473)
Operating EBIT	682	859	1,197	1,027	1,166
Financial Income/(Expense)	(126)	(48)	(91)	(100)	(100)
Pretax Income/(Loss) from Assoc.					
Non-Operating Income/(Expense)	119	79	105	81	210
Profit Before Tax (pre-EI)	676	891	1,211	1,047	1,320
Exceptional Items	(62)				
Pre-tax Profit	614	891	1,211	1,047	1,320
Taxation	(138)	(240)	(312)	(264)	(333)
Exceptional Income - post-tax					
Profit After Tax	475	651	899	783	987
Minority Interests					
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax					
Net Profit	475	651	899	783	987
Recurring Net Profit	523	651	899	783	987
Fully Diluted Recurring Net Profit	523	651	899	783	987

Cash Flow

(Rs mn)	Mar-20A	Mar-21A	Mar-22F	Mar-23F	Mar-24F
EBITDA	914	1,116	1,541	1,435	1,653
Cash Flow from Invt. & Assoc.					
Change In Working Capital	878	(1,033)	(1,101)	(419)	(239)
(Incr)/Decr in Total Provisions					
Other Non-Cash (Income)/Expense	17	(13)	(17)	(5)	(2)
Other Operating Cashflow	183	127	195	441	565
Net Interest (Paid)/Received	(126)	(48)	(91)	(100)	(100)
Tax Paid	(182)	(230)	(291)	(264)	(333)
Cashflow From Operations	1,684	(82)	236	1,130	1,592
Capex	(453)	(1,025)	(1,040)	(909)	(1,000)
Disposals Of FAs/subsidiaries	2		1		
Acq. Of Subsidiaries/investments	(289)	289	(3)		
Other Investing Cashflow	2	5	3		
Cash Flow From Investing	(738)	(731)	(1,039)	(909)	(1,000)
Debt Raised/(repaid)	(783)	884	923	400	(400)
Proceeds From Issue Of Shares	2	7			
Shares Repurchased					
Dividends Paid	(35)	(29)	(29)	(48)	(61)
Preferred Dividends					
Other Financing Cashflow	(129)	(48)	(89)	(100)	(100)
Cash Flow From Financing	(945)	813	805	(9)	(517)
Total Cash Generated	1	1	2	121	76
Free Cashflow To Equity	163	71	121	230	192
Free Cashflow To Firm	1,072	(765)	(712)	190	648

SOURCES: INCRED RESEARCH, COMPANY REPORTS

BY THE NUMBERS...cont'd

Balance Sheet					
(Rs mn)	Mar-20A	Mar-21A	Mar-22F	Mar-23F	Mar-24F
Total Cash And Equivalents	15	16	21	595	671
Total Debtors	1,608	1,872	2,736	1,957	2,196
Inventories	1,212	1,061	1,869	1,566	1,757
Total Other Current Assets	482	356	530	360	361
Total Current Assets	3,318	3,304	5,157	4,477	4,985
Fixed Assets	2,177	3,284	3,628	4,113	4,640
Total Investments					
Intangible Assets					
Total Other Non-Current Assets	222	188	183	179	182
Total Non-current Assets	2,400	3,472	3,811	4,292	4,822
Short-term Debt	987	1,470	2,794	2,794	2,794
Current Portion of Long-Term Debt					
Total Creditors	2,024	1,248	1,898	1,566	1,757
Other Current Liabilities	173	504	214	497	498
Total Current Liabilities	3,184	3,223	4,906	3,533	3,725
Total Long-term Debt		400		400	
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities			10		
Total Non-current Liabilities		400	10	400	
Total Provisions	65	60	85	86	86
Total Liabilities	3,248	3,683	5,001	3,995	3,788
Shareholders Equity	2,466	3,092	3,965	4,978	6,205
Minority Interests	3	1	2	2	2
Total Equity	2,469	3,093	3,967	4,980	6,206

Key Ratios					
	Mar-20A	Mar-21A	Mar-22F	Mar-23F	Mar-24F
Revenue Growth	21.3%	6.2%	21.9%	15.1%	12.2%
Operating EBITDA Growth	19.5%	22.1%	38.1%	28.8%	15.2%
Operating EBITDA Margin	17.5%	20.1%	22.8%	20.1%	20.6%
Net Cash Per Share (Rs)	(49.68)	(94.77)	(141.47)	(65.16)	(40.86)
BVPS (Rs)	126.00	157.99	202.32	254.40	317.08
Gross Interest Cover	5.42	18.08	13.22	16.96	20.99
Effective Tax Rate	22.5%	26.9%	25.8%	25.2%	25.2%
Net Dividend Payout Ratio	6.6%	5.4%	6.2%	6.2%	6.2%
Accounts Receivables Days	98.71	114.46	124.29	95.62	94.56
Inventory Days	115.38	121.26	138.26	117.24	118.20
Accounts Payables Days	143.21	174.58	148.45	130.86	118.20
ROIC (%)	13.7%	17.9%	11.8%	14.5%	13.8%
ROCE (%)	18.4%	20.1%	20.2%	16.2%	15.9%
Return On Average Assets	12.3%	11.0%	12.3%	9.8%	10.8%

SOURCES: INCRED RESEARCH, COMPANY REPORTS

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