

## 制冷剂配额发布，制冷剂价格持续上涨

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### 投资要点：

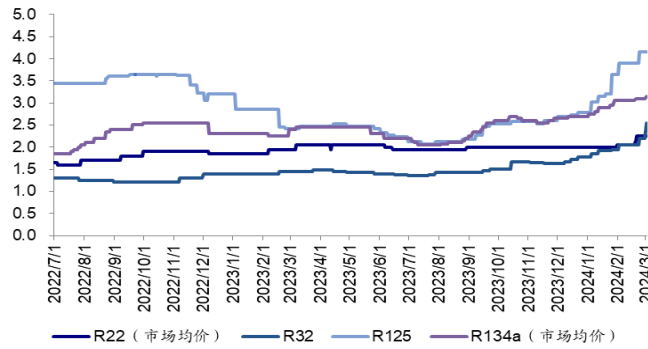
- **制冷剂价格持续上涨。**根据百川盈孚，截至2024年3月1日，R22的市场价格为22500元/吨，环比增加10%，同比增加15%，年初以来涨13%；R32的市场价格为25500元/吨，环比增加31%，同比增加76%，年初以来涨44%；R125的市场价格为41500元/吨，环比增加14%，同比增加71%，年初以来涨50%；R134a的市场价格为31500元/吨，环比增加3%，同比增加31%，年初以来涨17%。
- **我国将逐步削减氢氟碳化物的生产和使用。**2021年9月，为履行《保护臭氧层维也纳公约》《关于消耗臭氧层物质的蒙特利尔议定书》及其修正案规定的义务，根据《消耗臭氧层物质管理条例》有关规定，生态环境部、发展改革委、工业和信息化部共同修订了《中国受控消耗臭氧层物质清单》。2021年12月，生态环境部办公厅、发展改革委办公厅、工业和信息化部办公厅发布《关于严格控制第一批氢氟碳化物化工生产建设项目的通知》。按照2021年9月15日对我国生效的《〈关于消耗臭氧层物质的蒙特利尔议定书〉基加利修正案》(以下简称《修正案》)和《中国受控消耗臭氧层物质清单》(生态环境部、国家发展和改革委员会、工业和信息化部公告2021年第44号)，我国将逐步削减氢氟碳化物(HFCs)的生产和使用。
- **生态环境部发布2024年制冷剂配额。**1月29日，生态环境部核发2024年度消耗臭氧层物质和氢氟碳化物生产、使用和进口配额。2024年第二代制冷剂生产配额为21.35万吨，内用生产配额12.81万吨，占比约60%。2024年第三代制冷剂生产配额为74.56万吨，内用生产配额34.00万吨，占比约46%。
- **制冷剂供求紧张。**根据百川盈孚，截至2月29日，制冷剂市场交投逐步开启，配额支撑下企业挺价为主，整体价格维持高位；厂家报价上调，部分型号市场供应略紧，厂家控制接单。R125当前市场供应量有限，当前供应缩减导致卖方市场强势；R22受明年总供应缩减影响，主流生产厂家配额计划生产，配额支撑下行情坚挺；R143a当前内销配额预期紧张；R152a受配额影响，部分企业控制接单，市场供应偏紧；R410当前市场供应偏紧。
- **制冷剂受益于空调产销量提高。**国家统计局数据显示，2023年12月中国空调产量2152.9万台，同比增长26.9%；2023年1-12月累计产量24487万台，同比增长13.5%。根据百川盈孚，2024年1月家用空调生产1740.9万台，同比增长63.7%；销售1631.5万台，同比增长55.8%。其中内销732.3万台，同比增长62.6%；出口899.2万台，同比增长50.6%。根据智研咨询，我国制冷剂下游需求主要以空调为主，占比近80%。空调产销量提升将带动制冷剂需求提升。
- **关注公司：**东岳集团、巨化股份、三美股份、永和股份和昊华科技。
- **风险提示：**企业安全生产风险；原材料价格波动风险；环保标准提高风险。

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## 1. 制冷剂价格持续上涨

**制冷剂价格企稳回升。**根据百川盈孚，截至 2024 年 3 月 1 日，R22 的市场价格为 22500 元/吨，环比增加 10%，同比增加 15%，年初以来涨 13%；R32 的市场价格为 25500 元/吨，环比增加 31%，同比增加 76%，年初以来涨 44%；R125 的市场价格为 41500 元/吨，环比增加 14%，同比增加 71%，年初以来涨 50%；R134a 的市场价格为 31500 元/吨，环比增加 3%，同比增加 31%，年初以来涨 17%。

图 1 制冷剂价格（单位：万元/吨）



资料来源：百川盈孚，HTI

## 2. 我国将逐步削减氢氟碳化物的生产和使用

**2021 年 9 月，《基加利修正案》对我国生效。**2016 年 10 月，《关于消耗臭氧层物质的蒙特利尔议定书》（以下简称议定书）缔约方大会达成了《〈关于消耗臭氧层物质蒙特利尔议定书〉基加利修正案》（以下简称《修正案》），将气候公约框架下管控的 18 种氢氟碳化物（HFCs）纳入议定书实施逐步削减和管控。2021 年 9 月 15 日，《修正案》已对我国生效。根据《修正案》要求，我国应自 2024 年将生产和使用冻结在基线水平（基线是 2020 至 2022 年 HFCs 平均值加上 HFCs 基线水平的 65%，以二氧化碳当量为单位计算），2029 年起 HFCs 生产和使用不超过基线的 90%，2035 年起不超过基线的 70%，2040 年起不超过基线的 50%，2045 年起不超过基线的 20%。

2021 年 9 月，为履行《保护臭氧层维也纳公约》《关于消耗臭氧层物质的蒙特利尔议定书》及其修正案规定的义务，根据《消耗臭氧层物质管理条例》有关规定，生态环境部、发展改革委、工业和信息化部共同修订了《中国受控消耗臭氧层物质清单》。

2021 年 12 月，生态环境部办公厅、发展改革委办公厅、工业和信息化部办公厅发布《关于严格控制第一批氢氟碳化物化工生产建设项目的通知》。按照 2021 年 9 月 15 日对我国生效的《〈关于消耗臭氧层物质的蒙特利尔议定书〉基加利修正案》（以下简称《修正案》）和《中国受控消耗臭氧层物质清单》（生态环境部、国家发展和改革委员会、工业和信息化部公告 2021 年第 44 号），我国将逐步削减氢氟碳化物（HFCs）的生产和使用。

表 1 控制的氢氟碳化物名单

序号	代码	化学式	化学名称
1	HFC-32	CH <sub>2</sub> F <sub>2</sub>	二氟甲烷
2	HFC-134a	CH <sub>2</sub> FCF <sub>3</sub>	1,1,1,2-四氟乙烷
3	HFC-125	CHF <sub>2</sub> CF <sub>3</sub>	五氟乙烷
4	HFC-143a	CH <sub>3</sub> CF <sub>3</sub>	1,1,1-三氟乙烷
5	HFC-245fa	CHF <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub>	1,1,1,3,3-五氟丙烷

资料来源：生态环境部，HTI

### 3. 生态环境部发布 2024 年制冷剂配额

**2024 年暂不全部下发二代制冷剂基线值 65% 的配额。**对于配额总量中 HCFCs 生产和使用基线值 65% 的部分，2024 年暂不全部分配到生产单位和使用单位。我国 HFCs 生产基线值为 18.52 亿 t CO<sub>2</sub>、HFCs 使用基线值为 9.04 亿 t CO<sub>2</sub> (含进口基线值 0.05 亿 t CO<sub>2</sub>)。生态环境部组织编制了《2024 年度氢氟碳化物配额总量设定与分配方案》。2024 年我国 HFCs 生产配额总量为 18.53 亿吨二氧化碳当量 (t CO<sub>2</sub>)，内用生产配额总量为 8.95 亿 t CO<sub>2</sub>、进口配额总量为 0.1 亿 t CO<sub>2</sub>。

**品种调节方式严格。**同一品种 HFCs 配额可在生产单位间进行等量调整。生产单位仅可在申请 2024 年配额时进行不同品种 HFCs 调整，调整不得增加总二氧化碳当量；任一品种 HFCs 的配额调增量不得超过该生产单位根据本方案核定的该品种配额量的 10%；HFC-23 不参与调整。

表 2 2024 制冷剂生产配额 (单位: 万吨)

制冷剂类型	HFCs 种类	生产配额	内用生产配额	内用配额占比
第二代	HCFC-22	18.05	11.10	61%
	HCFC-141b	2.11	1.07	51%
	HCFC-142b	0.94	0.58	62%
	HCFC-123	0.22	0.04	20%
	HCFC-124	0.03	0.01	45%
	<b>总计</b>	<b>21.35</b>	<b>12.81</b>	<b>60%</b>
第三代	HFC-32	24.0	14.2	59%
	HFC-134a	21.6	8.3	38%
	HFC-125	16.6	6.0	36%
	HFC-143a	4.6	1.1	25%
	HFC-152a	3.3	0.8	24%
	HFC-227ea	3.1	2.8	88%
	HFC-245fa	1.4	0.9	61%
<b>总计</b>	<b>74.5</b>	<b>34.0</b>	<b>46%</b>	

资料来源: 生态环境部, HTI

**生态环境部发布 2024 年制冷剂配额。**1 月 29 日, 生态环境部核发 2024 年度消耗臭氧层物质和氢氟碳化物生产、使用和进口配额。2024 年第二代制冷剂生产配额为 21.35 万吨, 内用生产配额 12.81 万吨, 占比约 60%。2024 年第三代制冷剂生产配额为 74.56 万吨, 内用生产配额 34.00 万吨, 占比约 46%。

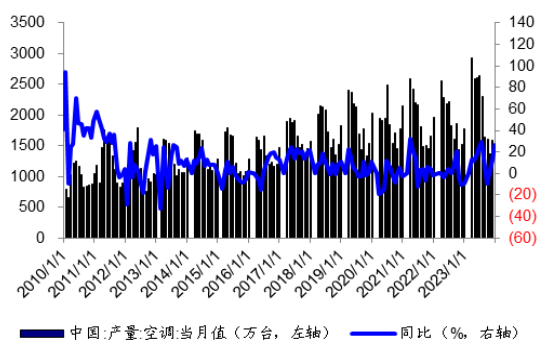
### 4. 制冷剂供求紧张

**制冷剂供求紧张。**根据百川盈孚, 截至 2 月 29 日, 制冷剂市场交投逐步开启, 配额支撑下企业挺价为主, 整体价格维持高位; 厂家报价上调, 部分型号市场供应略紧, 厂家控制接单。R125 当前市场供应量有限, 当前供应缩减导致卖方市场强势; R22 受明年总供应缩减影响, 主流生产厂家配额计划生产, 配额支撑下行情坚挺; R143a 当前内销配额预期紧张; R152a 受配额影响, 部分企业控制接单, 市场供应偏紧; R410 当前市场供应偏紧。

### 5. 制冷剂受益于空调产销量提高

**制冷剂受益于空调产销量提高。**国家统计局数据显示, 2023 年 12 月中国空调产量 2152.9 万台, 同比增长 26.9%; 2023 年 1-12 月累计产量 24487 万台, 同比增长 13.5%。根据百川盈孚, 2024 年 1 月家用空调生产 1740.9 万台, 同比增长 63.7%; 销售 1631.5 万台, 同比增长 55.8%。其中内销 732.3 万台, 同比增长 62.6%; 出口 899.2 万台, 同比增长 50.6%。根据智研咨询, 我国制冷剂下游需求主要以空调为主, 占比近 80%。空调产销量提升将带动制冷剂需求提升。

图 2 中国空调产量及其增速



资料来源：wind，国家统计局，HTI

## 6. 风险提示

企业安全生产风险；原材料价格波动风险；环保标准提高风险。

## APPENDIX 1

## Summary

## Investment Highlights:

Refrigerant prices are rising. As of March 1, 2024, R22's price is RMB 22,500/ton, up 10% MoM and 15% YoY; R32's price is RMB 25,500/ton, up 31% MoM and 76% YoY; R125's price is RMB 41,500/ton, up 14% MoM and 71% YoY; R134a's price is RMB 31,500/ton, up 3% MoM and 31% YoY. China is phasing out hydrofluorocarbons (HFCs) production and use. In January 2024, the Ministry of Ecology and Environment issued refrigerant quotas: 213,500 tons for second-generation refrigerants, 60% for domestic use; 745,600 tons for third-generation refrigerants, 46% for domestic use. Refrigerant supply is tight; R125 supply is limited, R22 is supported by reduced future supply, R143a domestic quota is expected to be tight, R152a and R410 supply is tight due to quotas. Refrigerant demand is driven by increased A/C production and sales. In December 2023, China's A/C output was 21.529 million units, up 26.9% YoY; total 2023 output was 244.87 million units, up 13.5% YoY. In January 2024, home A/C production was 17.409 million units, up 63.7% YoY; sales were 16.315 million units, up 55.8% YoY. Refrigerant demand is mainly for A/C, nearly 80%. Companies to watch: Dongyue Group, Zhejiang Juhua, Zhejiang Sanmei Chemical Industry, Zhejiang Yonghe Refrigerant, Haohua Chemical Science & Technology.

Risk Warning: Safety production risks; raw materials price volatility; stricter environmental standards.

## 附录 APPENDIX

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**优于大市**，未来 12-18 个月内预期相对基准指数涨幅在 10%以上，基准定义如下

**中性**，未来 12-18 个月内预期相对基准指数变化不大，基准定义如下。根据 FINRA/NYSE 的评级分布规则，我们会将中性评级划入持有这一类别。

**弱于大市**，未来 12-18 个月内预期相对基准指数跌幅在 10%以上，基准定义如下

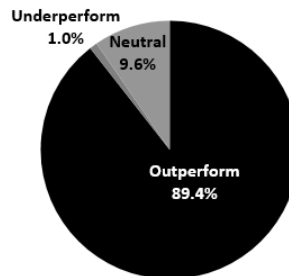
各地股票基准指数：日本 - TOPIX, 韩国 - KOSPI, 台湾 - TAIEX, 印度 - Nifty100, 美国 - SP500; 其他所有中国概念股 - MSCI China.

#### Ratings Definitions (from 1 Jul 2020):

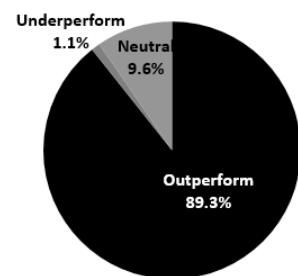
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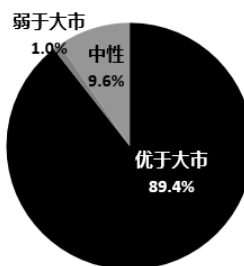
Most Recent Full Quarter



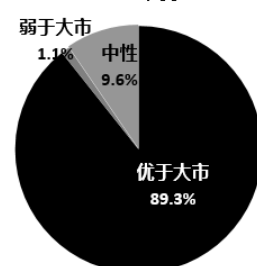
Prior Full Quarter



最新季度



上一季度





considerations.

#### Analyst Stock Ratings

**Outperform:** The stock's total return over the next 12-18 months is expected to exceed the return of its relevant broad market benchmark, as indicated below.

**Neutral:** The stock's total return over the next 12-18 months is expected to be in line with the return of its relevant broad market benchmark, as indicated below. For purposes only of FINRA/NYSE ratings distribution rules, our Neutral rating falls into a hold rating category.

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	优于大市	中性 (持有)	弱于大市
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\*在每个评级类别里投资银行客户所占的百分比。

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#### 此前的评级系统定义（直至 2020 年 6 月 30 日）：

买入，未来 12-18 个月内预期相对基准指数涨幅在 10%以上，基准定义如下

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各地股票基准指数：日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100; 其他所有中国概念股 – MSCI China.

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	Outperform	Neutral (hold)	Underperform
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IB clients*	3.9%	5.1%	5.6%

\*Percentage of investment banking clients in each rating category.

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For purposes only of FINRA/NYSE ratings distribution rules, our Neutral rating falls into a hold rating category. Please note that stocks with an NR designation are not included in the table above.

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