Global Top 50

Most major chemical companies posted declines in sales in 2023, reflecting an ongoing industry downturn.

	2023 IDENTIFIABLE CHEMICAL ASSETS	RETURN ON CHEMICAL
2   Singpie   Salogo   46,62   -216   1000   Disensified   2,100   -632   47   US		-
3   3   0   0   44,622   -21,6   100,0   0   0   0   0   0   0   0   0   0	\$83,716	5.5%
4	36,070	def.
6         8         PetroChina         40,880         3.4         9.6         Petrochemicals         9.7         n.m         0.2         Chas           7         4         Spike         ExponMobil         40,672         -14.4         12.2         Petrochemicals         5,598         -23.9         13.8         US           8         9         LycodeBasel Industries         31,28         -19.1         77.7         Petrochemicals         28.1         -2.5         8.8         US           10         12         Linde         30,094         0.3         93.4         Industrial gases         8,79         16.7         28.0         England           11         6 inces         29,558         3-01         100.0         Deversified         701         -80.0         2.6         England           12         11         Air Liquide         29,441         -7.6         98.6         Industrial gases         3,253         8.3         11.0         France           14         15         Regulated froup         26,808         -59         59.3         Petrochemicals         n/a         n/a         n/a           16         18         Wanhua Chemical Group         24,765         5.9	57,967	3.6
Fig.   Franch   Fig.   Fig.   Franch   Fig.   Fig.	59,281	3.3
No.   Sable   37,448   -22,7   100,0   Petrochemicals   882   -83.5   2.3   Saud Araba   8   0   Lyondrill Sasel Industries   31,928   -19.1   77.7   Petrochemicals   2,810   -32.6   8.8   US   10   10   Formical Pestics*   31,726   -191   64.5   Petrochemicals   n/a   n/a	n/a	n/a
8   9   UyondellBasell Industries   319.28   -19.1   77.7   Petrochemicals   2,810   -32.6   8.8   US     9   10   Formoss Piestics   31.26   -19.1   64.5   Petrochemicals   n/a   n/a   n/a   7a   7a   7a   7a   7a   7a   7a	45,674	12.3
10	78,501	1.1
10	n/a n/a	n/a n/a
12	n/a	n/a
13	37,080	2.1
13   13   Syngenta Group   26,800   -6.0   83.2   Agricultural chemicals   n/a   n	48,630	6.7
14	n/a	n/a
Petrochemical   26.405   -3.4   84.6   Diversified   1,066   -17.0   4.0   Japan	n/a	n/a
Group		
17	37,642	2.8
18	35,736	8.5
19	n/a	n/a
20   21   Shin-Etsu Chemical®   17,188   -14.0   100.0   Diversified   4,990   -29.8   29.0   Japan   21   20   Evonik Industries   16,514   -17.4   100.0   Specialty chemicals   -72   def.   def.   def.   Germany   22   -1   Jiangsu Eastern   15,733   79.2   79.3   Petrochemicals   n/a   n/a   n/a   China   China   Shenghong   Shenghong	n/a	n/a
20   Evonik Industries   16.514   -17.4   100.0   Specialty chemicals   -72   def.   def.   Germany	n/a	n/a
22	36,640	13.6
Sherghong   Sher	21,568	def.
24         22         Covestro         15,551         -20.0         100.0         Diversified         90         -66.3         0.6         Germany           25         17         Yara         15,431         -35.4         100.0         Fertilizers         312         -91.8         2.0         Norway           26         31         Toray Industries         15,312         -1.8         87.3         Diversified         745         7.2         4.9         Japan           27         29         Lotte Chemical         15,264         -10.5         100.0         Diversified         -266         def.         def.         def.         Japan           29         23         Braskem         14,129         -26.9         100.0         Petrochemicals         -350         def.         def.         Japan           30         25         Mosaic         13,696         -28.4         100.0         Fertilizers         1,710         -67.5         12.5         US           31         37         Air Products and Chemicals         12,600         -0.8         100.0         Diversified         627         -9.0         5.0         Japan           32 35         Mitsui Chemicals         12,454 <td>n/a</td> <td>n/a</td>	n/a	n/a
25         17         Yara         15,431         -35,4         100.0         Fertilizers         312         -91.8         2.0         Norway           26         31         Toray Industries         15,312         -1.8         87.3         Diversified         745         7.2         4.9         Japan           27         29         Lotte Chemical         15,264         -10.5         100.0         Diversified         -266         def.         def.         def.         def.         def.         def.         def.         Japan           29         23         Braskem         14,129         -26.9         100.0         Petrochemicals         -35.0         def.         Japan           30         25         Mosaic         13,696         -28.4         100.0         Fertilizers         1,710         -67.5         12.5         US           31         37         Air Products and Chemicals         12,600         -0.8         100.0         Industrial gases         2,704         14.8         21.5         US <tr< td=""><td>16,966</td><td>0.1</td></tr<>	16,966	0.1
26         31         Toray Industries         15,312         -1.8         87.3         Diversified         745         7.2         4.9         Japan           27         29         Lotte Chemical         15,264         -10.5         100.0         Diversified         -266         def.         def.         South Korea           28         30         Sumitomo Chemical         14,479         -8.6         83.1         Diversified         -57         def.         def.         Japan           29         23         Braskem         14,129         -26.9         100.0         Petrochemicals         -350         def.         def.         Brazil           30         25         Mosaic         13,696         -28.4         100.0         Fertilizers         1,710         -67.5         12.5         US           31         37         Air Products and Chemicals         12,600         -0.8         100.0         Industrial gases         2,704         14.8         21.5         US           32         35         Mitsui Chemicals         12,454         -6.9         100.0         Diversified         627         -9.0         5.0         Japan           33         36         DuPont         12	14,751	0.6
27         29         Lotte Chemical         15,264         -10.5         100.0         Diversified         -266         def.         def.         def.         Japan           28         30         Sumitomo Chemical         14,479         -8.6         83.1         Diversified         -57         def.	16,027	1.9
28         30         Sumitomo Chemical         14,479         -8.6         83.1         Diversified         -57         def.         DSM           31         37         Air Products and Chemicals         12,600         -0.8         100.0         Diversified         627         -9.0         5.0         Japan           32         35         Mitsui Chemicals         12,454         -6.9         100.0         Diversified         1,717         -15.1         14.2         US           34	n/a	n/a
29         23         Braskem         14,129         -26.9         100.0         Petrochemicals         -350         def.         def.         Brazil           30         25         Mosaic         13,696         -28.4         100.0         Fertilizers         1,710         -67.5         12.5         US           31         37         Air Products and Chemicals         12,600         -0.8         100.0         Industrial gases         2,704         14.8         21.5         US           32         35         Mitsui Chemicals         12,454         -6.9         100.0         Diversified         627         -9.0         5.0         Japan           34         32         Bayer         11,862         -7.3         100.0         Diversified         1,717         -15.1         14.2         US           34         32         Bayer         11,862         -23.4         23.0         Agricultural chemicals         n/a         n/a<	25,618	def.
30   25   Mosaic   13,696   -28.4   100.0   Fertilizers   1,710   -67.5   12.5   US     31   37   Air Products and Chemicals   12,600   -0.8   100.0   Industrial gases   2,704   14.8   21.5   US     32   35   Mitsui Chemicals   12,454   -6.9   100.0   Diversified   627   -9.0   5.0   Japan     33   36   DuPont   12,068   -7.3   100.0   Diversified   1,717   -15.1   14.2   US     34   32   Bayer   11,862   -23.4   23.0   Agricultural chemicals   n/a   n/a   n/a   n/a   Germany     35   33   Chevron Phillips Chemical   11,560   -18.5   100.0   Petrochemicals   n/a   n/a   n/a   n/a   n/a     36	18,268	def.
31         37         Air Products and Chemicals         12,600         -0.8         100.0         Industrial gases         2,704         14.8         21.5         US           32         35         Mitsui Chemicals         12,454         -6.9         100.0         Diversified         627         -9.0         5.0         Japan           33         36         DuPont         12,068         -7.3         100.0         Diversified         1,717         -15.1         14.2         US           34         32         Bayer         11,862         -23.4         23.0         Agricultural chemicals         n/a         n/a         n/a         n/a         n/a         Germany           35         33         Chevron Phillips Chemical         11,560         -18.5         100.0         Petrochemicals         n/a         n/a         n/a         n/a         McHerlands/ Switzerland           36         —         DSM-Firmenich*         11,495         26.7         100.0         Specialty chemicals         -614         def.         Mef.         Netherlands/ Switzerland           37         —         Tongkun Holding Group         11,320         33.0         100.0         Petrochemicals         n/a         n/a         n/a	18,368	def.
Chemicals   Chemicals   12,454   -6.9   100.0   Diversified   627   -9.0   5.0   Japan	23,033	7.4
33         36         DuPont         12,068         -7.3         100.0         Diversified         1,717         -15.1         14.2         US           34         32         Bayer         11,862         -23.4         23.0         Agricultural chemicals         n/a         n/a         n/a         n/a         n/a         Quernany           35         33         Chevron Phillips Chemical         11,560         -18.5         100.0         Petrochemicals         n/a         n/a         n/a         N/a         US           36         -         DSM-Firmeniche         11,495         26.7         100.0         Specialty chemicals         -614         def.         Metherlands/ Switzerland           37         -         Tongkun Holding Group         11,320         33.0         100.0         Petrochemicals         n/a         n/a         n/a         n/a         n/a         Neitherlands/ Switzerland           38         27         Nutrien         11,164         -40.8         38.4         Fertilizers         3,885         -61.9         34.8         Canada           39         -         Celanese         10,940         13.1         100.0         Diversified         1,218         -11.9         11.1	32,003	8.5
34         32         Bayer         11,862         -23.4         23.0         Agricultural chemicals         n/a         n/a         n/a         Germany           35         33         Chevron Phillips Chemical         11,560         -18.5         100.0         Petrochemicals         n/a         n/a         n/a         US           36         -         DSM-Firmeniche         11,495         26.7         100.0         Specialty chemicals         -614         def.         def.         Netherlands/ Switzerland           37         -         Tongkun Holding Group         11,320         33.0         100.0         Petrochemicals         n/a         n/a         n/a         China           38         27         Nutrien         11,164         -40.8         38.4         Fertilizers         3,885         -61.9         34.8         Canada           39         -         Celanese         10,940         13.1         100.0         Diversified         1,218         -11.9         11.1         US           40         -         Hengyi Petrochemical         10,858         20.0         56.5         Petrochemicals         534         -1.9         5.2         Belgium	15,771	4.0
35         33         Chevron Phillips Chemical         11,560         -18.5         100.0         Petrochemicals         n/a         n/a         n/a         US           36         —         DSM-Firmeniche         11,495         26.7         100.0         Specialty chemicals         -614         def.         def.         Netherlands/ Switzerland           37         —         Tongkun Holding Group         11,320         33.0         100.0         Petrochemicals         n/a         n/a         n/a         China           38         27         Nutrien         11,164         -40.8         38.4         Fertilizers         3,885         -61.9         34.8         Canada           39         —         Celanese         10,940         13.1         100.0         Diversified         1,218         -11.9         11.1         US           40         —         Hengyi Petrochemical         10,858         20.0         56.5         Petrochemicals         n/a         n/a         n/a         China           41         34         Umicore         10,297         -24.0         52.1         Specialty chemicals         534         -1.9         5.2         Belgium	38,552	4.5
36         —         DSM-Firmenich <sup>e</sup> 11,495         26.7         100.0         Specialty chemicals         —614         def.         def.         Netherlands/ Switzerland           37         —         Tongkun Holding Group         11,320         33.0         100.0         Petrochemicals         n/a         n/a         n/a         China           38         27         Nutrien         11,164         —40.8         38.4         Fertilizers         3,885         —61.9         34.8         Canada           39         —         Celanese         10,940         13.1         100.0         Diversified         1,218         —11.9         11.1         US           40         —         Hengyi Petrochemical         10,858         20.0         56.5         Petrochemicals         n/a         n/a         n/a         china           41         34         Umicore         10,297         —24.0         52.1         Specialty chemicals         534         —1.9         5.2         Belgium	n/a	n/a
Switzerland	19,709	n/a
37         —         Tongkun Holding Group         11,320         33.0         100.0         Petrochemicals         n/a         n/a         n/a         China           38         27         Nutrien         11,164         -40.8         38.4         Fertilizers         3,885         -61.9         34.8         Canada           39         —         Celanese         10,940         13.1         100.0         Diversified         1,218         -11.9         11.1         US           40         —         Hengyi Petrochemical         10,858         20.0         56.5         Petrochemicals         n/a         n/a         n/a         n/a         China           41         34         Umicore         10,297         -24.0         52.1         Specialty chemicals         534         -1.9         5.2         Belgium	37,069	def.
38         27         Nutrien         11,164         -40.8         38.4         Fertilizers         3,885         -61.9         34.8         Canada           39         —         Celanese         10,940         13.1         100.0         Diversified         1,218         -11.9         11.1         US           40         —         Hengyi Petrochemical         10,858         20.0         56.5         Petrochemicals         n/a         n/a         n/a         n/a         china           41         34         Umicore         10,297         -24.0         52.1         Specialty chemicals         534         -1.9         5.2         Belgium	n/a	n/a
40         —         Hengyl Petrochemical         10,858         20.0         56.5         Petrochemicals         n/a         n/a         n/a         China           41         34         Umicore         10,297         -24.0         52.1         Specialty chemicals         534         -1.9         5.2         Belgium	27,475	14.1
40         —         Hengyl Petrochemical         10,858         20.0         56.5         Petrochemicals         n/a         n/a         n/a         China           41         34         Umicore         10,297         -24.0         52.1         Specialty chemicals         534         -1.9         5.2         Belgium	26,597	4.6
41 34 Umicore 10,297 -24.0 52.1 Specialty chemicals 534 -1.9 5.2 Belgium	n/a	n/a
	7,856	6.8
	15,703	5.6
43 — Albemarle 9,617 31.4 100.0 Specialty chemicals 181 —92.7 1.9 US	18,271	1.0
<b>44</b> 42 Eastman Chemical 9,210 –12.9 100.0 Diversified 1,095 –4.5 11.9 US	14,633	7.5
45 45 Resonac Holdings <sup>e</sup> 9,173 -7.5 100.0 Diversified -27 def. def. Japan	14,462	def.
<b>46</b> 50 Asahi Kasei 8,980 -4.2 45.3 Specialty chemicals 303 3.8 3.4 Japan	12,526	2.4
47 — Hanwha Solutions 8,964 2.1 88.1 Diversified 205 –78.3 2.3 South Korea	21,032	1.0
48 — Xinfengming Group 8,681 21.0 100.0 Petrochemicals n/a n/a n/a China	n/a	n/a
49 — Sasol 8,662 —0.4 55.2 Diversified 864 —51.1 10.0 South Africa	n/a	n/a
50 — SK Innovation 8,370 —2.9 14.2 Diversified 404 558.7 4.8 South Korea	n/a	n/a

**Sources:** Company documents, C&EN analysis. **Note:** Some figures were converted at 2023 average exchange rates of US\$1.00 = 4.9946 Brazilian reais, 7.0809 Chinese yuan, 0.9245 euros, 82.5708 Indian rupees, 140.5001 Japanese yen, 31.1525 New Taiwan dollars, 3.75 Saudi riyals, 18.4535 South African rand, 1,306.764 South Korean won, and 34.7841 Thai baht. *def.* means deficit, *n/a* means not available, and *n.m.* means not meaningful. **a** Prior-year rankings have been revised from the July 24, 2023, issue of C&EN to reflect restated prior-year results and changes in exchange rates. Comparisons with prior years also use revised numbers. **b** Chemical sales less administrative expenses and cost of sales. **c** Chemical operating profit as a percentage of identifiable chemical assets. **e** Chemical sales include a significant number of nonchemical products. **f** C&EN estimates.