2-[2-[2-[2-[2-[2-[2-(2,2,3,3,4,4,4-Heptafluorobutano
2,2,3,3,4,4,4-heptafluorobutanoate

Other names: 2-[2-[2-[2-[2-[2-[2-(2,2,3,3,4,4,4-heptafluorobutanoyloxy)ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]ethyl 2,2,3,3,4,4,4-heptafluorobutanoate; 2,5,8,11,14,17,20,23,26,29,32,35,38,41,44,47,50,53,56,59,62,65,68,71,74,77,80,83,86,89,92,95,98,101,104,107,110,113,116,119,122,125,128,131,134,137,140,143,146,149,152,155,158,161,164,167,170,173,176,179,182,185,188,191,194,197,200,203,206,209,212,215,218,221,224,227,230,233,236,239,242,245,248,251,254,257,260,263,266,269,272,275,278,281,284,287,290,293,296,299,302,305,308,311,314,317,320,323,326,329,332,335,338,341,344,347,350,353,356,359,362,365,368,371,374,377,380,383,386,389,392,395,398,401,404,407,410,413,416,419,422,425,428,431,434,437,440,443,446,449,452,455,458,461,464,467,470,473,476,479,482,485,488,491,494,497,500,503,506,509,512,515,518,521,524,527,530,533,536,539,542,545,548,551,554,557,560,563,566,569,572,575,578,581,584,587,590,593,596,599,602,605,608,611,614,617,620,623,626,629,632,635,638,641,644,647,650,653,656,659,662,665,668,671,674,677,680,683,686,689,692,695,698,701,704,707,710,713,716,719,722,725,728,731,734,737,740,743,746,749,752,755,758,761,764,767,770,773,776,779,782,785,788,791,794,797,800,803,806,809,812,815,818,821-heptaoxapentacosa-1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,81,83,85,87,89,91,93,95,97,99,101,103,105,107,109,111,113,115,117,119,121,123,125,127,129,131,133,135,137,139,141,143,145,147,149,151,153,155,157,159,161,163,165,167,169,171,173,175,177,179,181,183,185,187,189,191,193,195,197,199,201,203,205,207,209,211,213,215,217,219,221,223,225,227,229,231,233,235,237,239,241,243,245,247,249,251,253,255,257,259,261,263,265,267,269,271,273,275,277,279,281,283,285,287,289,291,293,295,297,299,301,303,305,307,309,311,313,315,317,319,321,323,325,327,329,331,333,335,337,339,341,343,345,347,349,351,353,355,357,359,361,363,365,367,369,371,373,375,377,379,381,383,385,387,389,391,393,395,397,399,401,403,405,407,409,411,413,415,417,419,421,423,425,427,429,431,433,435,437,439,441,443,445,447,449,451,453,455,457,459,461,463,465,467,469,471,473,475,477,479,481,483,485,487,489,491,493,495,497,499,501,503,505,507,509,511,513,515,517,519,521,523,525,527,529,531,533,535,537,539,541,543,545,547,549,551,553,555,557,559,561,563,565,567,569,571,573,575,577,579,581,583,585,587,589,591,593,595,597,599,601,603,605,607,609,611,613,615,617,619,621,623,625,627,629,631,633,635,637,639,641,643,645,647,649,651,653,655,657,659,661,663,665,667,669,671,673,675,677,679,681,683,685,687,689,691,693,695,697,699,701,703,705,707,709,711,713,715,717,719,721,723,725,727,729,731,733,735,737,739,741,743,745,747,749,751,753,755,757,759,761,763,765,767,769,771,773,775,777,779,781,783,785,787,789,791,793,795,797,799,801,803,805,807,809,811,813,815,817,819,821-heptaoxapentacosa-1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,81,83,85,87,89,91,93,95,97,99,101,103,105,107,109,111,113,115,117,119,121,123,125,127,129,131,133,135,137,139,141,143,145,147,149,151,153,155,157,159,161,163,165,167,169,171,173,175,177,179,181,183,185,187,189,191,193,195,197,199,201,203,205,207,209,211,213,215,217,219,221,223,225,227,229,231,233,235,237,239,241,243,245,247,249,251,253,255,257,259,261,263,265,267,269,271,273,275,277,279,281,283,285,287,289,291,293,295,297,299,301,303,305,307,309,311,313,315,317,319,321,323,325,327,329,331,333,335,337,339,341,343,345,347,349,351,353,355,357,359,361,363,365,367,369,371,373,375,377,379,381,383,385,387,389,391,393,395,397,399,401,403,405,407,409,411,413,415,417,419,421,423,425,427,429,431,433,435,437,439,441,443,445,447,449,451,453,455,457,459,461,463,465,467,469,471,473,475,477,479,481,483,485,487,489,491,493,495,497,499,501,503,505,507,509,511,513,515,517,519,521,523,525,527,529,531,533,535,537,539,541,543,545,547,549,551,553,555,557,559,561,563,565,567,569,571,573,575,577,579,581,583,585,587,589,591,593,595,597,599,601,603,605,607,609,611,613,615,617,619,621,623,625,627,629,631,633,635,637,639,641,643,645,647,649,651,653,655,657,659,661,663,665,667,669,671,673,675,677,679,681,683,685,687,689,691,693,695,697,699,701,703,705,707,709,711,713,715,717,719,721,723,725,727,729,731,733,735,737,739,741,743,745,747,749,751,753,755,757,759,761,763,765,767,769,771,773,775,777,779,781,783,785,787,789,791,793,795,797,799,801,803,805,807,809,811,813,815,817,819,821-heptaoxapentacosa-1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,81,83,85,87,89,91,93,95,97,99,101,103,105,107,109,111,113,115,117,119,121,123,125,127,129,131,133,135,137,139,141,143,145,147,149,151,153,155,157,159,161,163,165,167,169,171,173,175,177,179,181,183,185,187,189,191,193,195,197,199,201,203,205,207,209,211,213,215,217,219,221,223,225,227,229,231,233,235,237,239,241,243,245,247,249,251,253,255,257,259,261,263,265,267,269,271,273,275,277,279,281,283,285,287,289,291,293,295,297,299,301,303,305,307,309,311,313,315,317,319,321,323,325,327,329,331,333,335,337,339,341,343,345,347,349,351,353,355,357,359,361,363,365,367,369,371,373,375,377,379,381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heptafluorobutyrate; Heptaethylene glycol, bis(heptafluorobutyrate)

Inchi: InChI=1S/C22H28F14O10/c23-17(24,19(27,28)21(31,32)33)15(37)45-13-11-43-9-7-41-5

InchiKey: FVTQPWWNERGTDL-UHFFFAOYSA-N

Formula: C22H28F14O10

SMILES: O=C(OCCOCCOCCOCCOCCOCCOC(=O)C(F)(F)C(F)(F)C(F)(F)F)C(F)(F)C(F)(F)C

Mol. weight [g/mol]: 718.43

Physical Properties

Property code	Value	Unit	Source
gf	-3673.78	kJ/mol	Joback Method
hf	-4578.37	kJ/mol	Joback Method
hfus	64.07	kJ/mol	Joback Method
hvap	78.12	kJ/mol	Joback Method
log10ws	-3.86		Crippen Method
logp	3.838		Crippen Method
mcvol	395.720	ml/mol	McGowan Method
pc	672.55	kPa	Joback Method
rinpol	2218.40		NIST Webbook
tb	960.26	K	Joback Method
tc	1228.86	K	Joback Method
tf	638.18	K	Joback Method
vc	1.609	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1373.38	J/mol×K	960.26	Joback Method
cpg	1389.90	J/mol×K	1005.03	Joback Method
cpg	1404.05	J/mol×K	1049.79	Joback Method
cpg	1415.99	J/mol×K	1094.56	Joback Method
cpg	1425.89	J/mol×K	1139.33	Joback Method
cpg	1433.91	J/mol×K	1184.09	Joback Method
cpg	1440.21	J/mol×K	1228.86	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U352027&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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