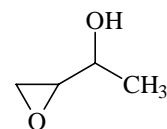


$r_0$	Å	$\theta_0$	deg
C–O(1)	1.420 <sup>a)</sup>	C(1)–C(2)–C(3)	121.2 <sup>a)</sup>
C(1)–C(2)	1.466 <sup>a)</sup>	C(2)–C(3)–C(4)	110.5 <sup>a)</sup>
C(2)–C(3)	1.517 <sup>a)</sup>	H–C(1)–C(2)	116.6 <sup>a)</sup>
C(3)–C(4)	1.535 <sup>a)</sup>	H–C(2)–C(3) ( <i>erythro</i> )	116.6 <sup>a)</sup>
C(3)–O(2)	1.420 <sup>a)</sup>	( <i>threo</i> )	116.0 <sup>a)</sup>
O(2)–H	0.960 <sup>a)</sup>	C(2)–C(3)–O(2)	109.0 <sup>a)</sup>
C(ring)–H	1.085 <sup>a)</sup>	C(2)–C(3)–H	109.47 <sup>a)</sup>
C(4)–H	1.093 <sup>a)</sup>	C(3)–C(4)–H	109.47 <sup>a)</sup>
C(3)–H	1.093 <sup>a)</sup>	C(3)–O(2)–H ( <i>erythro</i> )	105.0 <sup>a)</sup>
		( <i>threo</i> )	106.0 <sup>a)</sup>
		H(s)–C(1)–H, ring <sup>b)</sup>	90.0 <sup>a)</sup>
		H(a)–C(2)–C(3), ring <sup>b)</sup>	90.0 <sup>a)</sup>



Dihedral angles [deg]	<i>erythro</i> H bond inner	<i>threo</i> <sup>f)</sup> H bond inner	<i>threo</i> <sup>f)</sup> H bond outer I
H(4)–C(4)–C(3)–O(2)	180.0 <sup>a)</sup>	–60.0 <sup>a)</sup>	–60.0 <sup>a)</sup>
H(5)–C(4)–C(3)–O(2)	60.0 <sup>a)</sup>	180.0 <sup>a)</sup>	180.0 <sup>a)</sup>
H(6)–C(4)–C(3)–O(2)	–60.0 <sup>a)</sup>	60.0 <sup>a)</sup>	60.0 <sup>a)</sup>
C(1)–C(2)–C(3)–O(2)	–30.0 <sup>a)</sup> <sup>c)</sup>	–27(3) <sup>c)</sup>	–135(3) <sup>c)</sup>
C(1)–C(2)–C(3)–H	–150.0 <sup>a)</sup> <sup>c)</sup>	93(5) <sup>c)</sup>	–15(5) <sup>c)</sup>
C(1)–C(2)–C(3)–C(4)	90(3) <sup>c)</sup>	–147(3) <sup>c)</sup>	105(3) <sup>c)</sup>
C(4)–C(3)–O(2)–H	190(4) <sup>c)</sup>		
O(1)–C(2)–C(3)–O(2)		41.5(30) <sup>c)</sup>	–66.5(30) <sup>c)</sup>
C(2)–C(3)–O(2)–H		–46(5) <sup>c)</sup> <sup>d)</sup>	55(5) <sup>c)</sup> <sup>e)</sup>

Atom	$ a_s $ [Å]	$ b_s $ [Å]	$ c_s $ [Å]
H(hydroxyl), <i>erythro</i> H inner bond	0.008	1.746	0.057
H(hydroxyl), <i>threo</i> H inner bond	0.341	1.163	1.049
H(hydroxyl), <i>threo</i> H outer bond 1	0.689	1.878	0.199

One *erythro* and two *threo* conformers were identified. The *erythro* conformer is stabilized with an intramolecular hydrogen bond formed between the hydroxyl group hydrogen atom and the epoxy group oxygen atom. Two *threo* conformers are a H-bond inner and a H-bond outer I form, the former being 2.8(4) kJ mol<sup>–1</sup> more stable than the latter.

<sup>a)</sup> Assumed.

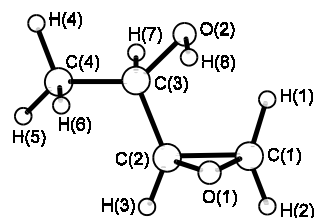
<sup>b)</sup> Angle between the plane of the epoxy ring and the adjacent atoms.

<sup>c)</sup> From *syn*.

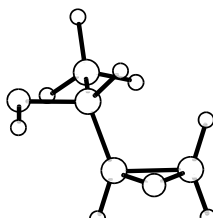
<sup>d)</sup> The O(2)–H bond is *gauche* to the C(3)–C(4) bond in this conformer.

<sup>e)</sup> The O(2)–H bond is *anti* to the C(3)–C(4) bond in this conformer.

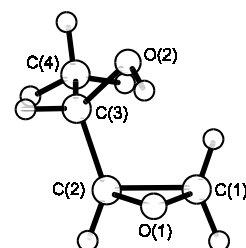
<sup>f)</sup> Atoms assumed to be arranged tetrahedrally around C(3).



*threo*, H bond inner



*threo*, H bond outer I



*erythro*, H bond inner

Marstokk, K.-M., Møllendal, H., Samdal, S., Stenstrøm, Y.: Acta Chem. Scand. **46** (1992) 325.

Marstokk, K.-M., Møllendal, H., Stenstrøm, Y., Sveiczer, A.: Acta Chem. Scand. **44** (1990)

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