



**CAS Registry Number:** 126622-78-4

**Molecular Formula:** C<sub>21</sub>H<sub>22</sub>O<sub>15</sub>

**Molecular Weight:** 514.396

**Accurate Mass:** 514.095875

**Percentage Composition:** C 49.03%; H 4.31%; O 46.65%

**Biological Source:** Constit. of *Cornus officinalis*

**Physical Description:** Light-tan amorph. powder + 2H<sub>2</sub>O

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>20</sup> +0.4 (c, 0.8 in MeOH)

>>**Derivative:** 7-(3,4-Dihydroxy-*E*-cinnamoyl)

**Synonym(s):** 7-*O*-Caffeoylsedoheptulose

**CAS Registry Number:** 288141-05-9

**Molecular Formula:** C<sub>16</sub>H<sub>20</sub>O<sub>10</sub>

**Molecular Weight:** 372.328

**Accurate Mass:** 372.10565

**Percentage Composition:** C 51.61%; H 5.41%; O 42.97%

**Biological Source:** Constit. of the wood of *Nyssa sylvatica*

**Physical Description:** Amorph. powder

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>25</sup> +13.9 (c, 0.42 in MeOH)

>>**Variant:**  $\beta$ -D-Pyranose-form

**Molecular Formula:** C<sub>7</sub>H<sub>14</sub>O<sub>7</sub>

**Molecular Weight:** 210.183

**Accurate Mass:** 210.073955

**Percentage Composition:** C 40.00%; H 6.71%; O 53.28%

>>**Derivative:** 2,7-Anhydro

**Synonym(s):** 2,7-Anhydro- $\beta$ -D-*altro*-2-heptulopyranose. Sedoheptulosan

**CAS Registry Number:** 469-90-9

**Molecular Formula:** C<sub>7</sub>H<sub>12</sub>O<sub>6</sub>

**Molecular Weight:** 192.168

**Accurate Mass:** 192.06339

**Percentage Composition:** C 43.75%; H 6.29%; O 49.95%

**Source/Synthesis:** Formed in equilib. with sedoheptulose in aq. acid soln. (80-90% anhydride)

**Melting Point:** Mp 155-156°

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>20</sup> -146 (H<sub>2</sub>O)

**Sigma:** S3375

>>**Derivative:** 2,7-Anhydro, monohydrate

**Melting Point:** Mp 101-102°

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>20</sup> -134 (H<sub>2</sub>O)

>>**Derivative:** 2,7-Anhydro, 4,5-*O*-isopropylidene

**Synonym(s):** 2,7-Anhydro-4,5-*O*-isopropylidene- $\beta$ -D-*altro*-2-heptulopyranose

**CAS Registry Number:** 43139-45-3

**Molecular Formula:** C<sub>10</sub>H<sub>16</sub>O<sub>6</sub>

**Molecular Weight:** 232.233

**Accurate Mass:** 232.09469

**Percentage Composition:** C 51.72%; H 6.94%; O 41.34%

**Melting Point:** Mp 226-227°

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>20</sup> -124 (c, 0.9 in H<sub>2</sub>O)