



**Percentage Composition:** C 58.89%; H 6.79%; O 34.32%  
**Biological Source:** Isol. from saffron and *Nyctanthes arbor-tristis*  
**Physical Description:** Red prismatic needles (MeOH)  
**Melting Point:** Mp 204-208°  
**Other Data:**  $\lambda_{\max}$  418, 439, 467 nm (Py);  $\lambda_{\max}$  430, 455 nm (MeOH)

>>Derivative:  $\beta$ -D-Flucopyranosyl Me diester  
**Synonym(s):** Crocin 4

**CAS Registry Number:** 55750-86-2

**Molecular Formula:** C<sub>27</sub>H<sub>36</sub>O<sub>9</sub>  
**Molecular Weight:** 504.576  
**Accurate Mass:** 504.235935  
**Percentage Composition:** C 64.27%; H 7.19%; O 28.54%  
**Biological Source:** Isol. from Saffron (*Crocus sativus*)  
**Physical Description:** Light red microprisms (Me<sub>2</sub>CO)  
**Melting Point:** Mp 230-236°  
**Other Data:**  $\lambda_{\max}$  435, 460 nm (MeOH)

>>Derivative: Di- $\beta$ -D-glucopyranosyl ester

**CAS Registry Number:** 57710-64-2

**Molecular Formula:** C<sub>32</sub>H<sub>44</sub>O<sub>14</sub>  
**Molecular Weight:** 652.691  
**Accurate Mass:** 652.27311  
**Percentage Composition:** C 58.89%; H 6.79%; O 34.32%  
**Biological Source:** Isol. from saffron (*Crocus sativus*)  
**Physical Description:** Wine red cryst.  
**Other Data:**  $\lambda_{\max}$  425, 447, 475 nm (Py)

>>Derivative: [ $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl] diester  
**Synonym(s):**  $\alpha$ -Crocin. Crocin. Gardenin

**CAS Registry Number:** 42553-65-1

**Molecular Formula:** C<sub>44</sub>H<sub>64</sub>O<sub>24</sub>  
**Molecular Weight:** 976.975  
**Accurate Mass:** 976.37876  
**Percentage Composition:** C 54.09%; H 6.60%; O 39.30%  
**Biological Source:** Constit. of gardenia and crocus, esp. saffron  
**Use/Importance:** Choleric agent  
**Physical Description:** Red cryst. (MeOH) or brown-red needles  
**Melting Point:** Mp 215° (186° dec.)  
**Optical Rotation:**  $[\alpha]_D^{21}$  +1760 (H<sub>2</sub>O)  
**Calculated Log P Data:** Log P -5.64 (uncertain value) (calc)

**Aldrich:** 19961-3

>>Derivative: [ $\beta$ -D-Glucopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranosyl]  $\beta$ -D-glucopyranosyl diester  
**Synonym(s):** Crocin 2

**CAS Registry Number:** 55750-84-0

**Molecular Formula:** C<sub>38</sub>H<sub>54</sub>O<sub>19</sub>  
**Molecular Weight:** 814.833  
**Accurate Mass:** 814.325935  
**Percentage Composition:** C 56.01%; H 6.68%; O 37.31%  
**Biological Source:** Isol. from saffron (*Crocus sativus*) and *Nyctanthes arbor-tristis*  
**Physical Description:** Dark red rectangular prisms (MeOH)  
**Melting Point:** Mp 208-210°  
**UV:** [neutral]  $\lambda_{\max}$  410 (); 440 ( $\epsilon$  84000); 460 () (EtOH) (Berdy)  
**Other Data:**  $\lambda_{\max}$  421, 443, 471 nm (Py)