>>**Entry Name: Uranium(*IV*) oxide (UO_2)**
Synonym(s): Uranium dioxide

CAS Registry Number: 1344-57-6
Related CAS Registry Numbers(s): 11113-93-2 12068-96-1 18378-88-6 84142-24-5 84142-25-6

UO_2

Molecular Formula: O_2U
Molecular Weight: 270.028
Accurate Mass: 270.040614
Percentage Composition: O 11.85%; U 88.15%

Source/Synthesis: Obt. by redn. of higher oxides at *ca.* 1000°
Use/Importance: Reactor fuel
Physical Description: Brown to black solid
Melting Point: Mp 2875°
Other Data: Paramagnetic; $\mu_{eff} = 1.8\mu_B$ (< 30.8K). On heating in air, turns into U_3O_8

>>**Variant:** Mineral-form
Synonym(s): Uraninite

CAS Registry Number: 1317-99-3
Extra CAS Registry Numbers(s): 1317-75-5

Molecular Formula: O_2U
Molecular Weight: 270.028
Accurate Mass: 270.040614
Percentage Composition: O 11.85%; U 88.15%

Source/Synthesis: Widespread occurence
Use/Importance: Principal uranium ore
Physical Description: Cubic cryst. Colour variable, may be steel black, brown-black, grey, green

>>**Derivative:** U_4O_9

>>**Derivative:** U_2O_5

>>**Derivative:** U_3O_8

>>**Derivative:** UO_3

References:

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