



>>Entry Name: Sulfur dioxide, 11CI

ENTRY UNDER REVIEW

Synonym(s): Sulfur oxide (SO₂). Sulfurous anhydride. Sulfurous oxide. FEMA 3039

CAS Registry Number: 7446-09-5

Extra CAS Registry Numbers(s): 12624-32-7

SO₂ (C_{2v})

Molecular Formula: O₂S

Molecular Weight: 64.065

Accurate Mass: 63.9619

Percentage Composition: O 49.95%; S 50.05%

143.2 pm; angle OSO 119.5°

Source/Synthesis: Synth. from S + O₂. Manuf. on huge scale

Use/Importance: Commercially available in steel cylinders. Used as bleach, disinfectant, food preservative. Used as non-aqueous solv. Intermediate in the production of H₂SO₄. Used in paper and pulp industry, as a fumigant in the food industry

Physical Description: Colourless non flammable gas with strong odour. Catalytically oxidised by air to SO₃

Melting Point: Mp -75.48°

Boiling Point: Bp -10.02°

Solubility: Sol. H₂O, soly. decreases with temp.

Other Data: T_{crit} 157.6°, P_{crit} 78 atm, V_{crit} 122 cm³g⁻¹

Hazard & Toxicity: Toxic, irritant

Aldrich: 29569-8

References:

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