



>>Entry Name: Rubidium iodide (RbI), 8CI

CAS Registry Number: 7790-29-6

RbI

Molecular Formula: IRb

Molecular Weight: 212.372

Accurate Mass: 211.816267

Percentage Composition: I 59.76%; Rb 40.24%

Source/Synthesis: Prepd. by slow neutralisation of Rb_2CO_3 with HI in aq. soln. Alternatively reaction of Rb_2CO_3 with I_2 in aq. soln. containing $\text{N}_2\text{H}_4\cdot\text{H}_2\text{O}$ affords pure RbI

Use/Importance: Commercially available

Physical Description: Light-sensitive colourless cubic cryst.

Melting Point: Mp 647°

Boiling Point: Bp 1300°

Solubility: V. sol. H_2O (152 g per 100 cm^3 at 17°; 163 g per 100 cm^3 at 25°); spar. sol. Me_2CO (0.67 g per 100 cm^3 at 25°)

Other Data: $\Delta H_f^\circ -334 \text{ kJ mol}^{-1}$; $\Delta G_f^\circ -329 \text{ kJ mol}^{-1}$; $S^\circ 118 \text{ J K}^{-1} \text{ mol}^{-1}$

Aldrich: 25144-5

Fluka: 83995

Sigma: R2502

References:

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Sirdeshmukh, D.B. *et al.*, *Curr. Sci., India*, 1964, **33**, 428, (*cryst struct*)

Arkhipov, S.M. *et al.*, *Metody Poluch. Khim. Reakt. Prep.*, 1967, 91; *CA*, 1968, **69**, 56588, (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, RQA000