

[Potassium Superoxide (KO₂)]

1] [OTHER NAMES]

- a] Potassium Dioxide
- b] Potassium hyperoxide.

2] [CAS NO]

- a] 12030-88-5

3] [FORMULA WEIGHT]

- a] 71.10 gm/mole

4] [SPECIFICATION]

Sr.	SPECIFICATION	POWDER	SHEET	GRANULES I	GRANULES II
1]	Appearance	Pale yellow	Pale yellow	Pale yellow	Pale yellow
2]	KO ₂ content (%) min.	96	90	82.5	96
3]	Copper content (%).	-	0.25	0.25	0.25
4]	O ₂ Evolution (ml/gm)	220 min.	170 min.	190 -200	220-230
5]	CO ₂ Evolution (ml/gm) max.	6	12	12	6
6]	Sizes (mm)	NA	L:313-318 / B:216-221 / T:5.5-6	3.5-5.6	3.5-5.6
7]	Weight (gm)	-	380-400	-	-
8]	Dust content (passing through 125 μ sieve (%) max	-	NA	0.5	0.5

5] [REACTIVITY]

- a] Potassium superoxide is a strong oxidizing agent and reacts explosively with organic materials.

6] [SOLUBILITY]

a] Potassium superoxide is soluble in ethers and hydrocarbons.

7] [STABILITY]

a] Potassium superoxide reacts readily with atmospheric moisture to form potassium hydroxide and oxygen is liberated. It should be stored in hermetically sealed condition under dry nitrogen.

8] [PACKAGING]

- a] 20 kgs in steel drums.
- b] Other custom packing available.

9] [SHIPPING INFORMATION]

- a] UN-2466, PG 1
- b] Corrosive solid.

10] [SAMPLING INSTRUCTIONS]

- a] The product is packed under dry nitrogen with positive pressure of nitrogen inside the drum.
- b] The quantity of the product deteriorates very fast if exposed to atmosphere even for a brief period.
- c] While sampling, please ensure that the sample is taken out under dry nitrogen in a preweighed stoppered bottle and analysis is done immediately.
- d] After sampling, tie the bag securely with a thread, put positive nitrogen pressure in the drum and tighten it properly.
This is very important so that the product does not deteriorate on storage.

11] [APPLICATIONS]

- a] Very convenient oxygen source. Oxygen evolution can be accelerated by incorporating catalyst in KO₂ powder. It is used extensively in self contained breathing apparatus. Suparna Chemicals manufacturers KO₂ based self contained breathing apparatus named RAKSHA KAVACH.
- b] Strong oxidizer for chemical reactions.