

[SODIUM POTASSIUM ALLOY (NAK)]

1] [OTHER NAMES]

Potassium-Sodium Alloy
Nak

2] [CAS NO]

(11135-81-2) for Nak
(7440-23-5) for Na
(7440-09-7) for K

3] [COMPOSITION]

Sodium and Potassium are miscible in all proportions giving a mobile silvery liquid. The phase diagram shows that Nak alloy in the concentration of 40-90 wt % of K remains liquid at room temperature.

4] [SPECIFICATIONS]

SPECIFICATIONS	NAK - 87	NAK - 78
Appearance	Silvery white free flowing liquid	Silvery white free flowing liquid
K (wt %)	87 ± 1	78 ± 1
Na (wt %)	13 ± 0.5	22 ± 0.5

5] [STABILITY]

Nak reacts violently with water to form hydrogen, potassium hydroxide, sodium hydroxide.

6] [PACKAGING]

0.5 kg. Nak in cylinder
90 kgs. Nak in DOT approved cylinder
340 kgs. Nak in DOT approved cylinder

7] [SHIPPING INFORMATION]

Un-1442, PG 1
Corrosive flammable liquid.

8] [APPLICATIONS]

Nak alloys are ideal for chemical reactions involving unstable intermediates. It is used to manufacture ISO BUTYL BENZENE, ALPHA OLEFINS, EPDM RUBBER AND PEN PLASTICS. It is ideal for use as heat exchange fluids.

9] [REACTIVITY]

Provides more reactive surface area than either potassium or sodium alone.

Reactions can be carried out at much lower temperature (-12°C).

Suitable for chemical reactions involving unstable intermediates such as carbanions and free radicals. Can be easily dispersed on any inert support.

SUCCESSFULLY USED IN :-

- I Side chain alkylation of aromatics
- II Isomerization of alpha olefins
- III Free radical and condensation polymerization
- IV Reduction of various inorganic and organic compounds
- V Impurity scavenging of acetylenic and allenic contaminants
- VI Cleavage of functional groups like C - X, C - O and O - S bonds.

10] [PRODUCT PROPERTIES]

High purity

High reactivity

Available in liquid form

Cost effective

Non-corrosive to metals