ProductInformation

FORMAMIDE
Sigma Prod. No. F4761 and F7503

CAS NUMBER: 75-12-7
SYNONYMS: amid kyseliny mravenci (czech); carbamaldehyde; methanamide; methanoic acid, amide

PHYSICAL PROPERTIES:

Appearance: Clear colorless to very faint yellow liquid
Molecular formula: CH_3NO
Formula weight: 45.04 (anhydrous)
Melting Point: +2.55°C[1]
Boiling Point: 210.5°C @760 mm (partial decomposition into CO and NH3 at atm pressure beginning at 180°C)[1]
Specific Gravity: 1.13340 @20°C with respect to H_2O @4°C[1]
Refractive Index: 1.44754 @20°C for sodium light [1]
Dielectric constant: 84[1]

STABILITY / STORAGE AS SUPPLIED:

Formamide may be stored at room temperature and should be protected from exposure to moisture. It will begin to partially decompose into carbon monoxide and ammonia at one atmosphere of pressure at 180°C. Industrial grades may have a faint odor of ammonia.[1]

SOLUBILITY / SOLUTION STABILITY:

Formamide is miscible with water, methanol, ethanol, acetone, acetic acid, dioxane, ethylene glycol, glycerol and phenol. It is very slightly soluble in ether and benzene. Many compounds such as tannins, starch, lignin, polyvinyl alcohol, cellulose acetate, nylon, chlorides of copper, lead, zinc, tin, cobalt, iron, aluminum, nickel and the acetates of the alkali metals will dissolve in formamide.

APPLICATIONS:

Formamide is used as an ionizing solvent, in the manufacture of formic esters, as a softener for paper, in animal glues and water soluble gums.[1]

REFERENCES:

1. *The Merck Index*, 12th ed., p. 718, #4264 (1996).