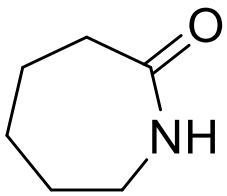
Product data sheet

MedKoo Cat#: 591894 Name: Caprolactam CAS#: 105-60-2 Chemical Formula: $C_6H_{11}NO$ Exact Mass: 113.0841 Molecular Weight: 113.16	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
Caprolactam is a Cyclic amide of caproic acid used in manufacture of synthetic fibers of the polyamide type.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	8.84 mL	44.19 mL	88.37 mL
5 mM	1.77 mL	8.84 mL	17.67 mL
10 mM	0.88 mL	4.42 mL	8.84 mL
50 mM	0.18 mL	0.88 mL	1.77 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

TBD

In vivo study

1. National Toxicology Program. Carcinogenesis Bioassay of Caprolactam (CAS No. 105-60-2) in F344 Rats and B6C3F1 Mice (Feed Study). Natl Toxicol Program Tech Rep Ser. 1982 Mar;214:1-129. PMID: 12778221.

7. Bioactivity
Biological target:

TBD

In vitro activity

TBD

In vivo activity

A carcinogenesis bioassay of caprolactam, a chemical intermediate used in the production of nylon 6, was conducted by feeding diets containing 3,750 or 7,500 ppm caprolactam to groups of 50 male or female F344 rats and 7,500 or 15,000 ppm to groups of 50 male or female B6C3F1 mice for 103 weeks. Control groups consisted of 50 undosed rats and 50 undosed mice of each sex. Throughout the bioassay, mean body weight gains for dosed rats and mice of either sex were decreased when compared with those of the controls. No

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other compound-related effects were observed. Under the conditions of this bioassay, caprolactam was not carcinogenic for F344 rats or B6C3F1 mice. Levels of Evidence of Carcinogenicity: Male Rats: Negative Female Rats: Negative Male Mice: Negative Female Mice: Negative Synonyms: aminocaproic lactam; 2-oxohexamethylenimine

Reference: Natl Toxicol Program Tech Rep Ser. 1982 Mar;214:1-129. https://ntp.niehs.nih.gov/go/tr214abs