Creative Enzymes®

cyanase

Cat. No. EXWM-4943

Lot. No. (See product label)

Introduction

Description This enzyme, which is found in bacteria and plants, is used to decompose cyanate, which can be used as the sole source of nitrogen. Reaction (1) can be considered as the reverse of 'carbamate = cyanate + H2O', where this is assisted by reaction with bicarbonate and carbon dioxide (see mechanism above), and hence is classified in sub-subclass 4.2.1. Bicarbonate functions as a recycling substrate.

Synonyms cyanate lyase; cyanate hydrolase; cyanate aminohydrolase; cyanate C-N-lyase; cyanate hydratase

Product Information

Form Liquid or lyophilized powder

EC Number EC 4.2.1.104

CAS No. 37289-24-0

Reaction cyanate + HCO3- + 2 H+ = NH3 + 2 CO2 (overall reaction); (1a) cyanate + HCO3- + H+ = carbamate + CO2; (1b) carbamate + H+ = NH3 + CO2 (spontaneous)

Notes This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.