

## Creatine monohydrate

Cat. No. COEC-096

Lot. No. (See product label)

### Introduction

#### Description

Creatine is a nitrogenous compound that acts as a high-energy reservoir for the rapid regeneration of ATP. Approximately 95% of creatine is found in skeletal muscle, primarily as phosphocreatine. Creatine can be acquired through dietary consumption or formed from L-arginine, glycine, and L-methionine in a multi-step reaction that occurs in the kidneys and liver. Creatine is then transported to muscle tissue. Creatine is also being investigated as a treatment of neuromuscular diseases, where it may aid in neuroprotection and by improving the cellular bioenergetic state.

#### Applications

involved with rapid ATP production primarily in skeletal muscle tissue via the action of creatine kinase(s)

#### Synonyms

N-Amidinosarcosine monohydrate

### Product Information

#### Form

Solid

#### CAS No.

6020-87-7

#### Molecular Formula

C<sub>4</sub>H<sub>9</sub>N<sub>3</sub>O<sub>2</sub>•H<sub>2</sub>O

#### Molecular Weight

149.15

#### Melting Point

292° C

#### Solubility

Soluble in water (50 mg/ml). Insoluble in ether.