

D-(+)-Maltose monohydrate

Product Number:	D8110
Storage Temperature:	Room Temperature
CAS Number:	6363-53-7
Molecular Formula:	$C_{12}H_{22}O_{11} \cdot H_2O$
Molecular Weight:	360.3
Synonyms:	4-O-a-D-Glucopyranosyl-D-glucose, malt sugar, maltobiose
Melting point:	102-103°C
Specific Rotation:	$+130.4^\circ \pm 1.3^\circ$ (40 mg/ml H ₂ O, 20 °C) calculated on the basis of the monohydrate.

Product Description

Maltose is a component of starch and glycogen. It is a sugar composed of 2 a-D-glucose molecules coupled by an a(1 → 4) glycosidic bond. It is a reducing sugar with one anomeric carbon not linked in an anomeric bond. It contains a hemiacetal function and can mutarotate. Maltose is one product generated from starch and glycogen by the action of a-amylase. Maltose can be further hydrolyzed to glucose by the action of a-glucosidase (maltase), an enzyme commonly found in yeast and many other sources. It is called malt sugar when it is formed in fermenting grains during the production of alcoholic beverages. Maltose is used as a sweetener with about one-third the sweetness of sucrose and as a nutrient in culture media. It is used in pharmaceutical formulations and as a parenteral supplement of sugar for diabetics. It is easily digested by humans.

Preparation Instructions

This product is soluble in water (50 mg per ml).

Storage/Stability

If stored as recommended, it will have a shelf-life of up to 6 years.

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.