

KOKYU ALCOHOL KOGYO CO., LTD.

Taiei Kogyo Danchi, 641-6 Kichioka, Narita, Chiba 287-0225, Japan

PHONE : +81-476-73-6020

FAX : +81-476-73-6024

PRODUCT DATA SHEET

COMMERCIAL NAME : HAISUGARCANE BG

CHEMICAL NAME : 1,3-Butylene Glycol

INCI NAME : BUTYLENE GLYCOL

GENERAL DESCRIPTION AND APPLICATION

HAISUGARCANE BG is a Cosmetic grade refined material conformity with National Formulary, The Japanese Standards of Quasi-Drug Ingredients for "1,3-Butylene Glycol".

1,3-Butylene Glycol consists chiefly of 1,3-Butylene Glycol.

SPECIFICATIONS

Description : 1,3-Butylene Glycol is a colorless liquid. It is odorless.
Identification : (1) To 1 mL of 1,3-Butylene Glycol add 0.5 g of potassium hydrogen sulfate, and heat: a characteristic odor is perceptible.
(2) To 0.35 g of 1,3-Butylene Glycol add 3 mL of pyridine and 2.1 g of triphenylchloromethane, and heat for 1 hour on a water bath under a reflux condenser. After cooling, dissolve in 60 mL of warm acetone, add 0.06 g of activated charcoal, shake well, and filter. Concentrate the filtrate to a half volume by evaporation on a water bath, and cool. Collect the crystals produced, dry at 105 °C for 30 minutes, and measure the melting point (Method 1): it is between 164 °C and 173 °C.
Specific gravity : d_{20}^{20} ; 1.004 – 1.007.

Purity

(1) Acidity or alkalinity : A solution of 1,3-Butylene Glycol (1 → 5) is neutral.
(2) Sulfate : Perform the test with 2.0 g of 1,3-Butylene Glycol: the limit is not more than 0.005%. Prepare the control solution with 0.20 mL of 0.005 mol/L sulfuric acid.
(3) Heavy metals : To 5 g of 1,3-Butylene Glycol, add 2 mL of dilute acetic acid and water to make 50 mL ; perform the test according to Method 4 with this solution as the test solution: the limit is not more than 5 ppm. Prepare the control solution with 2.5 mL of Standard Lead Solution.
(4) Arsenic : Dissolve 1.0 g of 1,3-Butylene Glycol in 25 mL of water, and perform the test using Apparatus B with this solution as the test solution: the limit is not more than 2 ppm.

Residue on ignition : Weigh accurately about 10 g of 1,3-Butylene Glycol in a tared crucible, and boil by heating. Stop heating, and ignite immediately to burn. After cooling, moisten the residue with 1 or 2 drops of sulfuric acid, and ignite carefully to the constant weight: the limit is not more than 0.05%.

Distilling range : Not less than 95 vol%.

Analytical Methods : The Japanese Standards of Quasi-Drug Ingredients pass.

(Reference)

Color : Not more than 100 APHA.

Analytical Methods : Standard Methods for the Analysis of Fats, Oils and Related Materials pass.

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