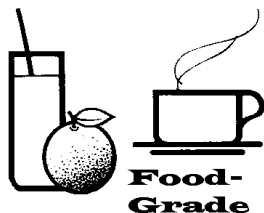


MOLYDUVAL

Biolube G



Glycerin

Glycerin of high purity, serves as an emollient, humectant, solvent, and lubricant in personal care products.

Competes with sorbitol although glycerol has better taste and higher solubility.

Toothpaste, mouthwashes, skin care products, shaving cream, hair care products and soaps

Glycerol is a component of glycerol soap, which is made from denatured alcohol, glycerol, sodium castorate (from castor), sodium cocoate, sodium tallowate, sucrose, water and parfum (fragrance). Sometimes one adds sodium laureth sulfate. This kind of soap is used by people with sensitive, easily irritated skin because it prevents skin dryness with its moisturizing properties. It is possible to make glycerol soap at home. It was once believed that when used as an emollient, glycerol should never be applied undiluted to the skin. It was thought that the same powerful hygroscopic property that draws moisture out of the air to moisten the skin will draw moisture out of the skin if the glycerol is too concentrated. This in fact has proven to be untrue.

One of the major raw materials for the manufacture of polyols for flexible foams, and to a lesser extent rigid polyurethane foams Glycerol is the initiator to which propylene oxide/ethylene oxide is added. Used in surface coatings and paints. Used as a softener and plasticizer to impart flexibility, pliability and toughness. Uses include meat casings, collagen casings (medical applications) and nonmeat packaging Plasticizer in cellophane.

Manufacture of paper as a plasticizer, Nitroglycerin, humectant and lubricant. Used in lubricating, sizing and softening of yarn and fabric.

Used in de-/anti-icing fluids, as in vitrification of blood cells for storage in liquid nitrogen. A way to preserve leaves is to submerge them in a solution of glycerol and water. Use a mixture of one part glycerol to two parts water. Place the mixture in a flat pan, and totally submerge the leaves in a single layer in the liquid. You'll have to weigh them down to keep them submerged. In two to six days, they should have absorbed the liquid and be soft and pliable. Remove them from the pan and wipe off all the liquid with a soft cloth. Done correctly, the leaves will remain soft and pliable indefinitely. Often used in the preparation of lichen for use in model scenery and dioramas. Can be added to solutions of water and soap to increase that solution's ability to generate soap bubbles that will last a long time. Used as an antifreeze or a cryoprotectant in cryogenic process.

Used in fog machine fluids. Used in hookah tobacco mixtures (called "ma'assel" or "shisha" tobacco), often along with molasses and/or honey. Used to increase the density of samples in gel electrophoresis, making them settle in the wells more efficiently. Used in PCR as an additive. It decreases the dielectric constant of the mixture, which will weaken hydrogen bonds in the double-stranded DNA and lower the annealing temperature. When mixed with potassium permanganate, iron oxide, and aluminum, it produces a spontaneous self igniting hypergolic thermite reaction. Used in the conservation of waterlogged organic objects (such as leather and wood) to stabilise before freeze-drying treatment. Used in ink for desktop printers as a viscosity controller and stabilizer.

Properties

- * water mixable
- * clear and transparent
- * not compatible with ethers, benzene, oils
- * odor less
- * miscible with alcohols

Applications

- * as sealing material
- * for formulation cremes and pastes
- * for manufacturing of brake fluids
- * as additive to cooling fluids

For further information, please see our website www.molydual.com or consult your local representative.

The technical data in this information sheet represents our best knowledge and experience. It is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary tests with the selected product to ensure that the product is safe, effective and fully satisfactory for the intended end use. It does also not form part of any sales contract as guaranteed properties of the delivered material.

MOLYDUVAL

Biolube G

* for filling of instruments

* as preservative for microscopic instruments

Technical Datas

Color		clear
Density 20°C	kg/m ³	1250
Basis		Glycerin
Flash Point	°C	180
Pour Point	°C	-18
Pureness	%	> 99.5
Vapour Pressure	mbar	0,0025

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The information may be affected by changes occurring subsequent to the date of printing in the blend formulation or methods of application. Updating : 20.05.2009