

Taj Pharmaceuticals Ltd.

Nitroglycerin [CAS 55-63-0]

CAS No. 4676-39-5

IUPAC Name: 1,3-dinitrooxypropan-2-yl nitrate | CAS Registry Number: 55-63-0

Synonyms: nitroglycerin, Nitrostat, Trinitroglycerin, Glyceryl trinitrate, Nitroglycerine, Nitroglycerol, Nitroderm, Nitroglyn, Nitrospan, Minitran, Nitro-dur, Nitrol, Trinitroglycerol, Perlinganit, Epinitril, Gilustenon, Millisrol, Nitrocine, Nitromint, Nitroplast

Molecular Formula: C₃H₅N₃O₉

Molecular Weight: 227.086500 [g/mol]

H-Bond Donor: 0

H-Bond Acceptor: 9

Exposure Limits

NIOSH REL: ST 0.1 mg/m³ [skin]

OSHA PEL†: C 0.2 ppm (2 mg/m³) [skin]

InChIKey: SNIOPGDIGTZGOP-UHFFFAOYSA-N

Nitroglycerin Property

Fp : 12°C

CAS Data Base Reference: 55-63-0(CAS DataBase Reference)

NIST Chemistry Reference: 1,2,3-Propanetriol, trinitrate(55-63-0)

EPA Substance Registry System: 1,2,3-Propanetriol, trinitrate(55-63-0)

Safety

Hazard Codes : E,T+,N

Risk Statements : 11-51/53-33-26/27/28-3

Safety Statements : 7-16-61-45-36/37-35-33

RIDADR : 1993

Hazard Class : 1.1A

Packing Group : I

Hazardous Substances Data: 55-63-0(Hazardous Substances Data)

Nitroglycerin Chemical Properties, Usage, Production

General Description:

Colorless to pale-yellow, viscous liquid or solid (below 56°F). (Note: An explosive ingredient in dynamite (20-40%) with ethylene glycol dinitrate (80-60%).)

Air & Water Reactions

Highly flammable.

Reactivity Profile

Nitroalkanes,

Packing: N/A

Explosive Liquid

Incompatibilities & Reactivities ::

Heat, ozone, shock, acids [Note: An OSHA Class A Explosive (1910.109).]

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Reactivity Profile: Nitroalkanes, such as NITROGLYCERIN, range from slight to strong oxidizing agents. If mixed with reducing agents, including hydrides, sulfides and nitrides, they may begin a vigorous reaction that culminates in a detonation. Nitroalkanes are milder oxidizing agents, but still react violently with reducing agents at higher temperature and pressures. Nitroalkanes react with inorganic bases to form explosive salts. The presence of metal oxides increases the thermal sensitivity of nitroalkanes. Nitroalkanes with more than one nitro group are generally explosive. Nitroalkanes are insoluble in water. Flammable/combustible material. May be ignited by heat, sparks or flames. Nitroglycerin is incompatible with the following: Heat, ozone, shock, acids. Note: An OSHA Class A Explosive (1910.109).

Health Hazard:

Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Runoff from fire control may cause pollution.

Fire Hazard

HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Many liquids are lighter than water.

**** [Note: An explosive ingredient in dynamite (20-40%) with ethylene glycol dinitrate (80-60%).]

