

the free alkali in the silicate to alkali metal carbonate and form a silica hydrogel containing dissolved carbonate, the resulting mass is commingled with a solution of an aluminium salt of a strong mineral acid, in an amount sufficient to provide up to 40% active alumina in the synthetic component of the finished catalyst and to react substantially completely with the residual carbonate, there being added if necessary a basic precipitant to the slurry to complete precipitation of the alumina, the product being filtered, purified and dried, with the proviso that clay may be added to the reaction materials at any stage during the process in a proportion constituting at most 50% by weight of the final product. Preferably the alkali metal salt is sodium silicate, the aluminium salt is alum and the clay is kaolin. Comparative examples are given.

948,014. Catalytic compositions. ASAHI KASEI KOGYO KABUSHIKI KAISHA. June 20, 1961 [June 21, 1960], No. 22309/61. Heading B1E. [Also in Division C2]

A catalyst for preparing acrylonitrile consists of tellurium oxide and either a salt of phosphomolybdic acid or molybdenum oxide, supported on alumina previously activated by heating at 300–1000 °C. The activated alumina is mixed with the other materials, moulded, and heated e.g. at above 300 °C. The materials may be in such proportions that the molar ratios are $P = 0$ to 3, $Te = 3$ to 15, $Mo = 5$ to 20 and $Al_2O_3 = 20$ to 50. In an example a catalyst is prepared from alumina previously activated by heating at 300–1000 °C., tellurium oxide and ammonium phosphomolybdate. Comparative examples describe the use of SiO_2 as a support.

948,041. Isomerization catalysts. E. I. DU PONT DE NEMOURS & CO. April 3, 1962 [April 10, 1961], No. 12688/62. Heading B1E. [Also in Division C5]

Rhodium trichloride, preferably dissolved in ethanol, which has been used as a catalyst in the codimerization of ethylene or propylene with 1,3-butadiene, is reactivated for re-use by the addition to the separated catalyst phase of hydrochloric acid. Preferably 1–40 mols of hydrochloric acid and optionally 500–25,000 grams of ethanol are added for each mol of rhodium trichloride in the separated catalyst phase.

948,051. Pressure sensitive adhesive insulating tape. MINNESOTA MINING & MANUFACTURING CO. Feb. 12, 1960 [Feb. 13, 1959; Feb. 19, 1959], No. 5070/60. Heading B2E.

A pressure-sensitive adhesive tape capable of being wound upon itself in roll form and of

then being unwound at temperatures as low as -20 °C. without delamination or off-setting of the adhesive, and wrapped around splices and wires, and having sufficient elasticity, retractility and adhesion at such low temperatures to remain tightly in place while providing effective electrical insulation of the splices and wires over the range of -20–87 °C., comprises (1) a film backing consisting essentially of a stable blend of (a) 100 parts by weight of a polymer of from 90 to 100 parts by weight of vinyl chloride, from 0 to 10 parts by weight of vinyl acetate and (b) 45 to 75 parts of plasticizer, the primary constituent of which is acylated polyester of glycol and dibasic carboxylic acid, at least 90 mol per cent of the glycol being at least one of 1,2-propylene glycol, 1,4-butanediol and 1,6-hexanediol, but not more than 65 mol per cent of the glycol being 1,2-propylene glycol, and at least 90 mol per cent of the dibasic acid being at least one of the group of saturated aliphatic dibasic acids having alkylene chains of 3 to 8 carbon atoms, the said polyester being terminated by acyl radicals containing 2 to 18 carbon atoms and on the average at least 8 carbon atoms and having an average molecular weight of 2250–7000, and an acid number of not more than 3; and (2) a normally tacky and pressure-sensitive adhesive coating united and firmly bonded to one face of the film backing, the adhesive coating comprising a homogeneous blend of (a) 40 to 60 parts natural rubber, (b) correspondingly 60 to 40 parts butadiene-styrene synthetic rubber, (c) 80 to 115 parts pure hydrocarbon thermoplastic terpene resin having low acid number and having a melting point of at least 60 °C., and (d) 3 to 16 parts of a compatible, oil soluble, heat reactive, phenol-aldehyde resin. At least two-thirds of the plasticizer may be the said acylated polyester, the remainder being a polyester of essentially equimolar proportions of 1,2-propylene glycol and dibasic carboxylic acid, at least 90 mol per cent of which is at least one of the group of saturated aliphatic dibasic acids having alkylene chains of 3 to 8 carbon atoms and having an average molecular weight in excess of 7000. A primer coating which may contain a butadiene-acrylonitrile copolymer, a glycerol ester of a gasoline in soluble resinous extract of pine wood, and a para-tertiary-butyl-phenol-formaldehyde resin, may also be present. The adhesive may contain tackifier resins, plasticizers, e.g. di-2-ethylhexylphthalate, dibasic lead phthalate, reinforcing fillers, e.g. carbon black, calcium carbonate, clay and silica, stabilizers, e.g. epoxidized soybean oil, di-tertiary-amyl-hydroquinone. All parts and percentages are by weight. Specification 635,127 is referred to.