CLAIMS

1. Use of at least one ~~S~~solvent system for the dissolution of fluoropolymers, in particular poly(vinylidene fluoride), said solvent system comprising:
   - from 50 to 99.9% by weight of a composition (A) comprising dimethyl sulphoxide (DMSO), and
   - from 0.1 to 50% by weight of a composition (B) comprising at least one ketone.

2. ~~Solvent system~~Use according to Claim 1, in which the said fluoropolymer is chosen from fluorinated and/or chlorofluorinated homopolymers and copolymers obtained by suspension or emulsion polymerization, ECTFE (ethylene/chlorotrifluoroethylene) copolymers, and perfluoroionomers, and others, preferably chosen from fluororesins comprising at least one poly(vinylidene fluoride) homopolymer and/or copolymer.

3. ~~Solvent system~~Use according to Claim 1 or Claim 2, in which the composition (A) comprises, in addition to the DMSO, one or more other solvents for the fluoropolymer other than a ketone.

4. ~~Solvent system~~Use according to Claim 3, in which the other solvent or solvents of the fluoropolymer other than a ketone is (are) chosen from esters, diesters, preferably from propylene carbonate, diethyl carbonate, dimethyl succinate, dimethyl adipate, dimethyl glutarate, and their mixtures.

5. ~~Solvent system~~Use according to Claim 3 or Claim 4, in which the amount of solvent(s) present in the composition (A) with the DMSO is between 0 and 50% by weight, preferably between 0 and 40% by weight and more preferably between 0 and 30% by weight, with respect to the total weight of the composition (A), the remainder to 100% consisting of the DMSO, alone or in combination with impurities, odorous agents and/or other additives.

6. ~~Solvent system~~Use according to any one of the preceding claims, in which the at least one ketone included in the composition (B) is chosen from linear or branched aliphatic and/or cycloaliphatic ketones, preferably from dimethyl ketone, diethyl ketone, methyl ethyl ketone, methyl isobutyl ketone, optionally substituted cyclohexanone, trimethylcyclohexanone (TMCHONE), cyclopentanone, and others, and the mixtures of two or more of these ketones in all proportions.

7. ~~Solvent system~~Use according to any one of the preceding claims, ~~comprising~~in which the solvent system comprises:

~~a.~~ from 70 to 95% by weight of DMSO, for example approximately 75% by weight, and

~~b.~~ from 5 to 30% by weight of at least one ketone chosen from cyclohexanone, trimethylcyclohexanone and their mixtures in all proportions, for example approximately 25% by weight.

8. ~~Solvent system~~Use according to any one of Claims 1 to 6, ~~comprising~~in which the solvent system comprises:

~~c.~~ from 85 to 99% by weight of DMSO, for example approximately 95% by weight, and

~~d.~~ from 1 to 15% by weight of acetone, for example approximately 5% by weight.

9. ~~Solvent system~~Use according to any one of Claims 1 to 6, ~~comprising~~in which the solvent system comprises:

~~e.~~ from 85 to 99% by weight, preferably approximately 95% by weight, of a mixture of 50% by weight of DMSO with 50% by weight of DBE, preferably dimethyl glutarate, and

~~f.~~ from 1 to 15% by weight of acetone, preferably approximately 5% by weight.

10. ~~Solvent system~~Use according to any one of Claims 1 to 6, ~~comprising~~in which the solvent system comprises:

~~g.~~ from 70 to 95% by weight, for example approximately 75% by weight, of a mixture of 50% by weight of

DMSO with 50% by weight of DBE, preferably dimethyl glutarate, and

~~h.~~ • from 5 to 30% by weight of at least one ketone chosen from cyclohexanone, trimethylcyclohexanone and their mixtures in all proportions, preferably approximately 25% by weight.

~~11. Use of at least one solvent system according to any one of the preceding claims for the dissolution of fluoropolymers, in particular poly(vinylidene fluoride).~~

11. Use according to any one of Claims 1 to 10, in the manufacture of films, membranes and coatings and in the manufacture of batteries.

12. Process for the dissolution of fluoropolymer, in particular poly(vinylidene fluoride), comprising at least the stage of bringing the said fluoropolymer into contact with at least one solvent system according to any one of Claims 1 to 10.

13. Solution comprising:

~~i.~~ • from 1 to 50% by weight, preferably from 1 to 40% by weight and more preferably from 1 to 25% by weight of at least one fluoropolymer, preferably at least one poly(vinylidene fluoride), and

~~j.~~ • from 50 to 99% by weight, preferably from 60 to 99% by weight and more preferably from 75 to 99% by weight of at least one solvent system according to any one of Claims 1 to 10.

14. Use of ~~the solvent system for fluoropolymer according to any one of Claims 1 to 10, or~~ a solution ~~of fluoropolymer in the solvent system~~ according to Claim 13, in the manufacture of films, membranes and coatings and in the manufacture of batteries.