

# Technical Bulletin

## HUNTSMAN

### JEFFSOL<sup>®</sup> ALKYLENE CARBONATES In Industrial Cleaner Formulations

JEFFSOL<sup>®</sup> Alkylene Carbonates find utility in numerous cleaning applications. One such application is in industrial cleaning applications. These applications include the cleaning of uncured components from a substrate where the uncured components were used in the preparation of a polyurethane foam, polymer, polyester or epoxy.

JEFFSOL<sup>®</sup> Alkylene Carbonates have very low toxicity, low color, low odor, low VOC and are environmentally friendly. As a matter of fact, JEFFSOL<sup>®</sup> Propylene Carbonate is widely used in the personal care industry. JEFFSOL<sup>®</sup> Alkylene Carbonates also have high flash points. All of these characteristics make JEFFSOL<sup>®</sup> Alkylene Carbonates a favorable, environmentally friendly solvent in many applications.

The Table below illustrates a few starting formulations developed by Huntsman Corporation. Huntsman Corporation has a technical staff devoted to applications research.

INDUSTRIAL CLEANER FORMULATIONS (PATENT PENDING)	
Ingredients	Ingredient Ratios
JEFFSOL <sup>®</sup> PC/DBE	50/50
JEFFSOL <sup>®</sup> PC/NMP	50/50
JEFFSOL <sup>®</sup> PC/PM	50/50
JEFFSOL <sup>®</sup> EC-50/DBE	50/50
JEFFSOL <sup>®</sup> EC-50/NMP	50/50
JEFFSOL <sup>®</sup> EC-50/PM	50/50

(DBE = Dupont's dibasic ester mixture, NMP = N-methylpyrrolidone, PM = propylene glycol methyl ether)

Please note that the formulations listed are only starting formulations and further formulation may be necessary to optimize. The listed starting formulations are the "best all around" cleaning formulations for industrial applications. One can find a more complete list of application specific formulations on pages 9-10 of the JEFFSOL<sup>®</sup> Alkylene Carbonates Bulletin.

Huntsman also has a Polymer solubility guide available, which may aid in your solvent search.

Huntsman also offers a complete line of amines, glycols, and anionic surfactants. Contact your local Huntsman Representative for more information.

All formulations and technology listed above is covered under United States Patent # 6,187,108.

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