

## To whom it may concern

### Regarding: Residual solvents in cell culture products

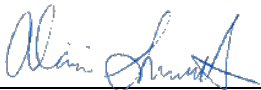
This statement is to address concerns regarding residual solvents in cell culture products as classified in International Conference on Harmonization (ICH) Guideline for Residual Solvents Q3C. Cytiva does not manufacture finished drugs but understands that cell culture products may be used in the manufacture of finished drugs and drug products.

It is hereby stated that no class 1 or class 2 residual solvents are used in Cytiva cell culture products.

According to ICH Q3C, "class 3 includes no solvent known as a human health hazard at levels normally accepted in pharmaceuticals." A list of potential class 3 solvents used in cell culture products is shown below. Not all solvents are used in all products.

Solvent	Other Names	Structure	Class
Acetic Acid	Ethanoic Acid	CH <sub>3</sub> COOH	Class 3
Ethanol	Ethyl Alcohol	C <sub>2</sub> H <sub>6</sub> O	Class 3
2-Propanol	Propan-2-ol Isopropyl alcohol	(CH <sub>3</sub> ) <sub>2</sub> CHOH	Class 3
Dimethyl Sulfoxide	DMSO	C <sub>2</sub> H <sub>6</sub> OS	Class 3

When class 3 solvents are included in cell culture product formulations, their levels are either well below the Permitted Daily Exposure (PDE) limits described in ICH Q3C or their concentrations are noted on the product label. Equipment is thoroughly cleaned between lots of manufactured product. The current strategy for validating the cleaning of a piece of equipment is a minimum of three consecutive, successful cleanings, followed by a single, yearly successful cleaning.

Signature: 	Date: 23 Jul 2020
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