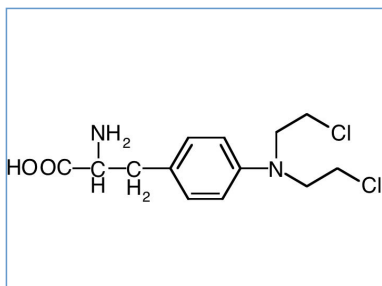


# Stabilis



## Melphalan



Tradename

Alkeran	Belgium, Brazil, Canada, Chile, Colombia, France, Germany, Greece, Iran, Ireland, Italy, Luxembourg, Malaysia, Netherlands, New Zealand, Sweden, Switzerland, United Arab Emirates, United States of America
Egymelan	Peru
Eriolan	Argentina, Ecuador
Melfalan	Argentina, Chile, Ecuador, Germany, Spain
Melfoma	Argentina, Peru
Melkayl	Chile
Melphalan	Great Britain
Phelinun	Germany



### Stability in solutions

		0,06 mg/ml	23°C		1			1501
		0,06 mg/ml	4°C		24			1501
		5 mg/ml	23°C		6			4189
		0,2 mg/ml	-20°C		72			160
		0,2 mg/ml	4°C		6			160
		0,06 mg/ml	23°C		1			1501
		0,06 mg/ml	4°C		24			1501
		0,2 mg/ml	-20°C		72			160
		0,2 mg/ml	4°C		6			160
		0,5 mg/ml	23-27°C		2			3977
		1 mg/ml	23°C		1			4189
		1 mg/ml	4°C		2			4189
		1,5 & 2 mg/ml	23°C		2			4189

PVC	▲	1,5 & 2 mg/ml	4°C	?	2	✓			4189
PVC	▲	2 mg/ml	2-8°C	☀️	24	✓			3977
PVC	▲	2 mg/ml	23-27°C	☀️	6	✓			3977
PVC	▲	4 mg/ml	2-8°C	☀️	2	✓			3977
PVC	▲	4 mg/ml	23-27°C	☀️	8	✓			3977
PVC	▲	0,2 mg/ml	-20°C	☀️	72	✓			160
PVC	▲	0,2 mg/ml	20°C	☀️	12	✓			160
PVC	▲	0,2 mg/ml	23°C	☀️	5	✓			160
PVC	▲	0,2 mg/ml	26°C	☀️	3	✓			160
PVC	▲	0,2 mg/ml	4°C	☀️	48	✓			160
PVC	▲	2 mg/ml	23°C	☀️	4	✓			160
PVC	▲	2 mg/ml	26°C	☀️	3	✓			160
PE	▲	0,06 mg/ml	21°C-22°C	?	2	✓			1520
PE	▲	0,06 mg/ml	23°C	☀️	1	✓			1501
PE	▲	0,06 mg/ml	4°C	☀️	24	✓			1501
PE	▲	0,06 mg/ml	4°C	?	24	✓			1520
PP	▲	2 mg/ml	4°C	☀️	4	✓			3516
PE	▲	0,015 mg/ml	-18°C	?	28	◐			3949
PE	▲	0,2 mg/ml	-18°C	?	28	◐			3949
?	▲	0,3 mg/ml	-20°C	☀️	180	◐			3786

























































### Factors which affect stability

					3584
					160
	[Cl-]				854
					160
	4°C	5 mg / ml			4189
					4701




## Compatibility

			
	Melphalan : 0.1 mg/ml Aciclovir sodium : 7 mg/ml		169
	Melphalan : 0.1 mg/ml Allopurinol sodium : 3 mg/ml		307
	Melphalan : 0.1 mg/ml Amikacin sulfate : 5 mg/ml		169
	Melphalan : 0.1 mg/ml Aminophylline : 2.5 mg/ml		169
	 Melphalan : 0.1 mg/ml Amphotericin B : 0.6 mg/ml		169
	Melphalan		3584
	 Melphalan : 0.1 mg/ml Amphotericin B : 0.6 mg/ml		169
	Melphalan : 0.1 mg/ml Ampicillin sodium : 20 mg/ml		169
	Melphalan : 0.1 mg/ml Aztreonam : 40 mg/ml		169
	Melphalan : 0.1 mg/ml Bleomycin sulfate : 1 mg/ml		169
	 Melphalan		3584
	Melphalan : 0.1 mg/ml Bumetanide : 0.04 mg/ml		169
	Melphalan : 0.1 mg/ml Buprenorphine hydrochloride : 0.04 mg/ml		169
	Melphalan : 0.1 mg/ml Butorphanol tartrate : 0.04 mg/ml		169
	Melphalan : 0.1 mg/ml Calcium gluconate : 40 mg/ml		169
	Melphalan : 0.1 mg/ml Carboplatin : 5 mg/ml		169
	Melphalan : 0.1 mg/ml Carmustine : 1.5 mg/ml		169
	Melphalan : 1 mg/ml Caspofungin acetate : 0,7 mg/ml		2247
	Melphalan : 0.1 mg/ml Cefazolin sodium : 20 mg/ml		169
	Melphalan : 0.1 mg/ml Cefoperazone sodium : 40 mg/ml		169
	Melphalan : 0.1 mg/ml Ceforanide : 20 mg/ml		169
	Melphalan : 0.1 mg/ml Cefotaxime sodium : 20 mg/ml		169
	Melphalan : 0.1 mg/ml Ceftazidime : 40 mg/ml		169
	Melphalan : 0.1 mg/ml Ceftizoxime sodium : 20 mg/ml		169

	Melphalan : 0.1 mg/ml Ceftriaxone disodium : 20 mg/ml		169
	Melphalan : 0.1 mg/ml Cefuroxime sodium : 20 mg/ml		169
	Melphalan : 0.1 mg/ml Chlormethine hydrochloride : 1 mg/ml		307
	Melphalan : 0.1 mg/ml Chlorpromazine hydrochloride : 2 mg/ml		169
	Melphalan : 0.1 mg/ml Cimetidine hydrochloride : 12 mg/ml		169
	Melphalan : 0.1 mg/ml Cisplatin : 1 mg/ml		169
	Melphalan : 0.1 mg/ml Clindamycin phosphate : 10 mg/ml		169
	Melphalan : 0.1 mg/ml Co-trimoxazole : 0.8/4 mg/ml		169
	Melphalan : 0.1 mg/ml Cyclophosphamide : 10 mg/ml		169
	Melphalan : 0.1 mg/ml Cytarabine : 50 mg/ml		169
	Melphalan : 0.1 mg/ml Dacarbazine : 4 mg/ml		169
	Melphalan : 0.1 mg/ml Dactinomycin : 10 µg/ml		169
	Melphalan : 0.1 mg/ml Daunorubicin hydrochloride : 1 mg/ml		169
	Melphalan : 0.1 mg/ml Dexamethasone sodium phosphate : 1 mg/ml		169
	Melphalan : 0.1 mg/ml Diphenhydramine hydrochloride : 2 mg/ml		169
	Melphalan : 0.1 mg/ml Doxorubicin hydrochloride : 2 mg/ml		169
	Melphalan : 0.1 mg/ml Doxycycline hyclate : 1 mg/ml		307
	Melphalan : 0.1 mg/ml Droperidol : 0.4 mg/ml		169
	Melphalan : 0.1 mg/ml Enalaprilate : 0.1 mg/ml		169
	Melphalan : 0.1 mg/ml Etoposide : 0.4 mg/ml		169
	Melphalan : 0.1 mg/ml Famotidine : 2 mg/ml		169
	Melphalan : 0.1 mg/ml Filgrastim : 30 µg/ml		244
	Melphalan : 0.1 mg/ml Floxadine : 3 mg/ml		169
	Melphalan : 0.1 mg/ml Fluconazole : 2 mg/ml		169
	Melphalan : 0.1 mg/ml Fludarabine phosphate : 1 mg/ml		169
	Melphalan : 0.1 mg/ml Fluorouracil : 16 mg/ml		169

	Melphalan : 0.1 mg/ml Furosemide : 3 mg/ml		169
	Melphalan : 0.1 mg/ml Gallium nitrate : 0.4 mg/ml		169
	Melphalan : 0.1 mg/ml Ganciclovir sodium : 20 mg/ml		169
	Melphalan : 0.1 mg/ml Gentamicin sulfate : 5 mg/ml		169
	Melphalan : 0.1 mg/ml Granisetron hydrochloride : 0.05 mg/ml		182
	Melphalan : 0.1 mg/ml Haloperidol lactate : 0.2 mg/ml		169
	Melphalan : 0.1 mg/ml Heparin sodium : 100 UI/ml		169
	Melphalan : 0.1 mg/ml Hydrocortisone sodium succinate : 1 mg/ml		169
	Melphalan : 0.1 mg/ml Hydromorphone hydrochloride : 0.5 mg/ml		169
	Melphalan : 0.1 mg/ml Hydroxyzine dihydrochloride : 4 mg/ml		169
	Melphalan : 0.1 mg/ml Idarubicin hydrochloride : 0.5 mg/ml		169
	Melphalan : 0.1 mg/ml Ifosfamide : 25 mg/ml		169
	Melphalan : 0.1 mg/ml Imipenem - cilastatin sodium : 10 mg/ml		169
	Melphalan Iohexol		4376
	Melphalan Ioversol		4376
	Melphalan : 0.1 mg/ml Lorazepam : 0.1 mg/ml		169
	Melphalan : 0.1 mg/ml Mannitol : 150 mg/ml		169
	Melphalan : 0.1 mg/ml Mesna : 10 mg/ml		169
	Melphalan : 0.1 mg/ml Methotrexate sodium : 15 mg/ml		169
	Melphalan : 0.1 mg/ml Methylprednisolone sodium succinate : 5 mg/ml		169
	Melphalan : 0.1 mg/ml Metoclopramide hydrochloride : 5 mg/ml		169
	Melphalan : 0.1 mg/ml Metronidazole : 5 mg/ml		169
	Melphalan : 0.1 mg/ml Minocycline hydrochloride : 0.2 mg/ml		169
	Melphalan : 0.1 mg/ml Mitomycin : 0.5 mg/ml		169
	Melphalan : 0.1 mg/ml Mitoxantrone dihydrochloride : 0.5 mg/ml		169
	Melphalan : 0.1 mg/ml Morphine sulfate : 1 mg/ml		169

	Melphalan : 0.1 mg/ml Nalbuphine hydrochloride : 10 mg/ml		169
	Melphalan : 0.1 mg/ml Netilmicin sulfate : 5 mg/ml		169
	Melphalan : 0.1 mg/ml Ondansetron hydrochloride : 1 mg/ml		169
	Melphalan : 0.1 mg/ml Pentostatin : 0.4 mg/ml		169
	Melphalan : 0.1 mg/ml Pethidine hydrochloride : 4 mg/ml		169
	Melphalan : 0.1 mg/ml Piperacillin sodium : 40 mg/ml		169
	Melphalan : 0.1 mg/ml Potassium chloride : 100 mEq/l		169
	Melphalan : 0.1 mg/ml Prochlorperazine edysilate : 0.5 mg/ml		169
	Melphalan : 0.1 mg/ml Promethazine hydrochloride : 2 mg/ml		169
	Melphalan : 0.1 mg/ml Ranitidine hydrochloride : 2 mg/ml		169
	Melphalan : 0.1 mg/ml Sodium bicarbonate : 84 mg/ml		169
	Melphalan : 0.1 mg/ml Streptozocin : 40 mg/ml		169
	Melphalan : 0.1 mg/ml Teniposide : 0.1 mg/ml		905
	Melphalan : 0.1 mg/ml Thiotepa : 10 mg/ml		169
	Melphalan : 0.1 mg/ml Ticarcillin / clavulanic acid : 31 mg/ml		169
	Melphalan : 0.1 mg/ml Tobramycin sulfate : 5 mg/ml		169
	Melphalan : 0.1 mg/ml Vancomycin hydrochloride : 10 mg/ml		169
	Melphalan : 0.1 mg/ml Vinblastine sulfate : 0.12 mg/ml		169
	Melphalan : 0.1 mg/ml Vincristine sulfate : 0.05 mg/ml		169
	Melphalan : 0.1 mg/ml Vinorelbine tartrate : 1 mg/ml		84
	Melphalan : 0.1 mg/ml Zidovudine : 4 mg/ml		169



## Route of administration










































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	Type	Publication
84	Journal	Trissel LA, Martinez JF. Visual, turbidimetric, and particle-content assessment of compatibility of vinorelbine tartrate with selected drugs during simulated Y-site injection. Am J Hosp Pharm 1994 ; 51: 495-499.
160	Journal	Pinguet F, Martel P, Rouanet P, Fabbro M, Astre C. Effect of sodium chloride concentration and temperature on melphalan stability during storage and use. Am J Hosp Pharm 1994 ; 51: 2701-2704.
169	Journal	Trissel LA, Martinez JF. Physical compatibility of melphalan with selected drugs during simulated Y-site administration. Am J Hosp Pharm 1993 ; 50: 2359-2363.
182	Journal	Trissel LA, Gilbert DL, Martinez JF. Compatibility of granisetron hydrochloride with selected drugs during simulated Y-site administration. Am J Health-Syst Pharm 1997 ; 54: 56-60.
244	Journal	Trissel LA, Martinez JF. Compatibility of filgrastim with selected drugs during simulated Y-site administration. Am J Hosp Pharm 1994 ; 51: 1907-1913.
307	Journal	Trissel LA, Martinez JF. Compatibility of allopurinol sodium with selected drugs during simulated Y-site administration. Am J Hosp Pharm 1994 ; 51: 1792-1799.
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905	Journal	Trissel LA, Martinez JF. Screening teniposide for Y-site physical incompatibilities. Hosp Pharm 1994 ; 29: 1010-1017.
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4189	Journal	Kawedia J, Ramchandran S, Liu X, Gulbis A, Titus M, Bashir Q, Qazilbash M, Champlin R, Ciur S, Stability of Captisol-enabled versus propylene glycol-based melphalan at room temperature and after refrigeration. Am J Health-Syst Pharm 2022 ;79,12: 1011-1018
4376	Journal	Shi Z, Abruzzo T, Wanasathop A, Li S K. Compatibility of Melphalan in Iodinated Contrast Media. Int J Pharm Compound 2020 ;24,1:83-85
4701	Journal	Singh R, Chen J, Miller T, Bergren M, Mallik R. Solution stability of Captisol-stabilized melphalan (Evomela) versus Propylene glycol-based melphalan hydrochloride injection.  Pharm Dev Technol 2018 ; 23, 10: 1024-1029.



# Dictionary

 Anticancer drug	 injection
 Tradename	 Stability in solutions
 Container	 Molecule
 Concentration	 Temperature
 Storage	 Duration of stability
 Biosimilar	 conflicting data
 References	 Glass
 Sodium chloride 0,9%	 Protect from light
 Hour	 specific solvent
 Not specified	 Polyvinyl chloride
 Water for Injection	 Light
 Sodium chloride 3%	 Polyethylene
 Polypropylene	 NaCl 0.9% (4°C)
 Polypropylen Syringe	 Day
 Not specified	 Factors which affect stability
 Solvent	 Glucose 5%
 Induces	 Degradation
 Enhanced stability	 Increase
 Precipitation	 Reduced concentration
 Reduced stability	 Compatibility
 Compound	 Compatible
 Immediate turbidity	 Incompatible
 Chemical instability	 Turbidity in one hour
 Route of administration	 Intravenous
 Intravenous infusion	 Intra-arterial
 Intravitreal	 References
 Dictionary	