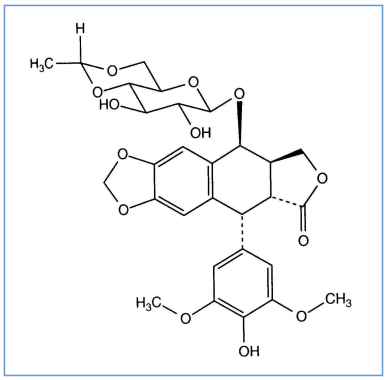
Stabilis

Etoposide



Noms commerciaux

Eposin	Belgique, Colombie, Equateur, Malaisie, Suède
Etolon	Inde, Pérou
Etomedac	Allemagne
Etonolver	Vénézuela
Etoposide	Australie, Belgique, Canada, Egypte, Equateur, Etats Unis d'Amérique, Finlande, France, Grande Bretagne, Grèce, Hongrie, Iran, Irlande, Italie, Pays bas
Etosid	Egypte, Inde, Iran, Malaisie
Eunades	Brésil
Euvaxon	Argentine
Fytosid	Egypte, Inde, Malaisie
Lastet	Arabie Saoudite, Egypte, Emirats Arabes Unis , Hongrie, Iran, Italie, Pologne, Turquie
Riboposid	Allemagne
Vepesid	Allemagne, Arabie Saoudite, Autriche, Belgique, Canada, Colombie, Danemark, Emirats Arabes Unis , Espagne, Etats Unis d'Amérique, Finlande, Grande Bretagne, Grèce, Hongrie, Iran, Irlande, Italie, Japon, Luxembourg, Maroc, Norvège, Nouvelle Zélande, Pays bas, Pologne, Roumanie, Slovénie, Suède, Suisse, Turquie
Vepeside	Iran, Maroc

Stabilité des solutions

		0,2 mg/ml	24°C		22			1613
		0,2 mg/ml	4°C		14			1613
		0,2 mg/ml	?	?	7			504
		0,3 mg/ml	24°C		2			1613

		0,3 mg/ml	4°C		7				1613
		0,4 mg/ml	20°C-22°C		4				482
		0,4 mg/ml	24°C	?	24				161
		0,4 mg/ml	24°C		24				1613
		0,4 mg/ml	4°C	?	24				161
		0,4 mg/ml	4°C		2				1613
		10 mg/ml	24°C		5				1613
		10 mg/ml	4°C		7				1613
		12 mg/ml	24°C		7				1613
		12 mg/ml	4°C		14				1613
		0,2 mg/ml	?	?	7				504
		0,4 mg/ml	20°C-22°C		4				482
	RL	0,4 mg/ml	20°C-22°C		4				482
PVC		0.25 mg/ml	8-12°C	?	21				2167
PVC		0.4 mg/ml	20-23°C		7				2167
PVC		0.25 mg/ml	8-12°C	?	21				2167
PVC		0.4 mg/ml	20-23°C		7				2167
PE		0,05 & 0,2 mg/ml	20-25°C	±	7				1722
PE		0,05 & 0,2 mg/ml	25°C	±	8				1520
PE		0,05 & 0,2 mg/ml	4°C		7				1722
PE		0,05 & 0,2 mg/ml	4°C	±	8				1520
PE		0,4 mg/ml	24°C	?	24				161
PE		0,4 mg/ml	4°C	?	24				161
PE		0,05 & 0,2 mg/ml	20-25°C	±	7				1722
PE		0,05 & 0,2 mg/ml	25°C	±	8				1520
PE		0,05 & 0,2 mg/ml	4°C		7				1722
PE		0,05 & 0,2 mg/ml	4°C	±	8				1520
PP		0,157 mg/ml	25°C	±	48				152
PP		0,157 mg/ml	4°C	±	48				152
POF		0,4 mg/ml	23-27°C		21				4369
POF		0,4 mg/ml	25°C		21				4024
POF		0,6 mg/ml	23-27°C		21			⚠	4369
POF		0,6 mg/ml	25°C		21			⚠	4024

POF		0.25 mg/ml	20°C		5				3670
POF		10 mg/ml	20-25°C	?	7				4927
POF		0,38 mg/ml	25°C		61			⚠	4125
POF		0,4 mg/ml	23-27°C		21				4369
POF		0,4 mg/ml	25°C		21				4024
POF		0,6 mg/ml	23-27°C		21			⚠	4369
POF		0,6 mg/ml	25°C		21				4024
POF		0,74 mg/ml	25°C		61			⚠	4125
POF		1,26 mg/ml	25°C		61			⚠	4125
POF		1,75 mg/ml	25°C		28			⚠	4125
PI		0,1 mg/ml	25°C		24	✓			4304
PI		0,1 mg/ml	33°C		24	✓			4304
PI		0,4 mg/ml	25°C		24	✓			4304
PI		0,4 mg/ml	33°C		24	✓			4304
PI		0,6 mg/ml	25°C		8	✓			4304
PI		0,6 mg/ml	33°C		6	✓			4304
PI		0,1 mg/ml	25°C		12	✓			4304
PI		0,1 mg/ml	33°C		12	✓			4304
PI		0,4 mg/ml	25°C		24	✓			4304
PI		0,4 mg/ml	33°C		24	✓			4304
PI		0,6 mg/ml	25°C		8	✓			4304
PI		0,6 mg/ml	33°C		6	✓			4304

Stabilité en mélange

		0,2 & 0,4 mg/ml	20,5°C-24°C		Cisplatin : 0,2 mg/ml	48 ✓	417
		0,2 mg/ml	20°C-23°C		Granisetron hydrochloride : 0,5 mg/ml	4 ✓	57
PVC		0,2 & 0,4 mg/ml	20,5°C-24°C		Cisplatin : 0,2 mg/ml	48 ✓	417
PVC		0,1 & 0,4 mg/ml	21°C-23°C		Ondansetron hydrochloride : 0,03 & 0,3 mg/ml	48 ✓	184
PVC	0.45	0,4 mg/ml	20°C		Cytarabine : 0,26 mg/ml Daunorubicin hydrochloride : 0,03 mg/ml	72 ✓	643
PP		0,157 mg/ml	25°C	±	Cytarabine : 0,157 mg/ml Daunorubicin hydrochloride : 0,0157 mg/ml	48 ✓	152

PP		0,157 mg/ml	4°C		Cytarabine : 0,157 mg/ml Daunorubicin hydrochloride : 0,0157 mg/ml	48	152
POF		0,250 mg/ml	23°C-25°C		Vincristine sulfate : 0,002 mg/ml Doxorubicin hydrochloride : 0,050 mg/ml	72	1033
POF		0,125 mg/ml	23°C-25°C		Doxorubicin hydrochloride : 0,025 mg/ml Vincristine sulfate : 0,001 mg/ml	96	1033
POF		0,175 mg/ml	23°C-25°C		Vincristine sulfate : 0,0014 mg/ml Doxorubicin hydrochloride : 0,035 mg/ml	96	1033
POF		0,125 mg/ml	25°C		Epirubicin hydrochloride : 0,0375 mg/ml Vindesine sulfate : 0,002 mg/ml	24	4352
POF		0,175 mg/ml	25°C		Vindesine sulfate : 0,0028 mg/ml Epirubicin hydrochloride : 0,0525 mg/ml	24	4352
POF		0,250 mg/ml	25°C		Epirubicin hydrochloride : 0,075 mg/ml Vindesine sulfate : 0,004 mg/ml	24	4352
POF		0,200 mg/ml	31°C-33°C		Doxorubicin hydrochloride : 0,040 mg/ml Vincristine sulfate : 0,0016 mg/ml	72	1033
?		0,2 mg/ml	20°C-23°C		Topotecan : 0,028 mg/ml	4	1026
?		0,2 mg/ml	20°C-23°C		Topotecan : 0,028 mg/ml	4	1026
?	Ø	10 mg/ml	25°C		Mitoxantrone dihydrochloride : 1 mg/ml	22	1730
?	Ø	0,5 mg/ml	25°C		Mitoxantrone dihydrochloride : 0,05 mg/ml	22	1730

Facteur influençant la stabilité

	PVC				140 161 1819 1895 1984
		4°C			4369
		-20°C			4369
	4°C	10 mg/ml			4927

Compatibilités

		Etoposide : 0.4 mg/ml Aztreonam : 40 mg/ml		99
		Etoposide		5077
		Etoposide : 0.4 mg/ml Allopurinol sodium : 3 mg/ml		307
		Etoposide : 0.4 mg/ml Amifostine : 10 mg/ml		3
		Etoposide : 0,2 & 0,4 mg/ml Cisplatin : 0,2 mg/ml		417

		Etoposide : 0,2 & 0,4 mg/ml Cisplatin : 0,2 mg/ml		417
		Etoposide : 0.4 mg/ml Cladribine : 0.015 mg/ml		1496
		Etoposide : 0.4 mg/ml Cladribine : 0.5 mg/ml		1496
		Etoposide : 0.4 mg/ml Doxorubicin hydrochloride liposome peg : 0.4 mg/ml		251
		Etoposide : 0.4 mg/ml Filgrastim : 30 µg/ml		244
		Etoposide : 0.4 mg/ml Fludarabine phosphate : 1 mg/ml		492
		Etoposide : 0.4 mg/ml Gallium nitrate : 1 mg/ml		91
		Etoposide : 0.4 mg/ml Gemcitabine hydrochloride : 10 mg/ml		1423
		Etoposide	RL	482
		Etoposide : 0.4 mg/ml Granisetron hydrochloride : 1 mg/ml		57
		Etoposide : 0.4 mg/ml Granisetron hydrochloride : 0.05 mg/ml		182
		Etoposide : 1 mg/ml Hydroxyzine dihydrochloride : 0.5 mg/ml		331
		Etoposide : 0.4 mg/ml Idarubicin hydrochloride : 1 mg/ml		491
		Etoposide : 0.4 mg/ml Melphalan : 0.1 mg/ml		169
		Etoposide : 0.6 mg/ml Methotrexate sodium : 30 mg/ml		150
		Etoposide : 0.4 mg/ml Micafungin : 1.5 mg/ml		2108
		Etoposide : 0,5 & 10 mg/ml Mitoxantrone dihydrochloride : 0,05 & 1 mg/ml		1730
		Etoposide : 0,14 >> 0,25 mg/ml Ondansetron hydrochloride : 0,016 >> 0,16 mg/ml		3574
		Etoposide : 0,1 mg/ml Ondansetron hydrochloride : 0,3 mg/ml		184
		Etoposide : 0,4 mg/ml Ondansetron hydrochloride : 0,03 mg/ml		184
		Etoposide : 0,4 mg/ml Ondansetron hydrochloride : 0,3 mg/ml		184
		Etoposide : 0,1 mg/ml Ondansetron hydrochloride : 0,03 mg/ml		184
		Etoposide : 0.4 mg/ml Ondansetron hydrochloride : 1 mg/ml		334
		Etoposide : 0.4 mg/ml Paclitaxel : 1.2 mg/ml		85
		Etoposide : 0.4 mg/ml Piperacillin sodium / tazobactam : 40/5 mg/ml		81
		Etoposide : 0.4 mg/ml Sargramostim : 10 µg/ml		335

	✓	Etoposide : 0.6 mg/ml Sodium bicarbonate : 14 mg/ml	∅	150
	✓	Etoposide : 0.4 mg/ml Teniposide : 0.1 mg/ml	◆	905
	✓	Etoposide : 0.4 mg/ml Thiotepa : 1 mg/ml	◆	249
	✓	Etoposide : 0.4 mg/ml Topotecan : 0.056 mg/ml	▲	1026
	✓	Etoposide	▲	5077
	✓	Etoposide : 0.4 mg/ml Topotecan : 0.056 mg/ml	◆	1026
	✓	Etoposide : 0.4 mg/ml Vinorelbine tartrate : 1 mg/ml	▲	84
	✓	Etoposide : 0.6 mg/ml	NaH CO3	150

Voie d'administration

Bibliographie

	Type	Source
3	Revue	Trissel LA, Martinez JF. Compatibility of amifostine with selected drugs during simulated Y-site administration. Am J Health-Syst Pharm 1995 ; 52: 2208-2212.
57	Revue	Mayron D, Gennaro AR. Stability and compatibility of granisetron hydrochloride in IV solutions and oral liquids and during simulated Y-site injection with selected drugs. Am J Health-Syst Pharm 1996 ; 53: 294-304.
81	Revue	Trissel LA, Martinez JF. Compatibility of piperacillin sodium plus tazobactam with selected drugs during simulated Y-site injection. Am J Hosp Pharm 1994 ; 51: 672-678.
84	Revue	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.
85	Revue	Trissel LA, Bready BB. Turbidimetric assessment of the compatibility of taxol with selected other drugs during simulated Y-site injection. Am J Hosp Pharm 1992 ; 49: 1716-1719.
91	Revue	Lober CA, Dollard PA. Visual compatibility of gallium nitrate with selected drugs during Y-site injection. Am J Hosp Pharm 1993 ; 50: 1208-1210.
99	Revue	Trissel LA, Martinez JF. Compatibility of aztreonam with selected drugs during simulated Y-site administration. Am J Health-Syst Pharm 1995 ; 52: 1086-1090.

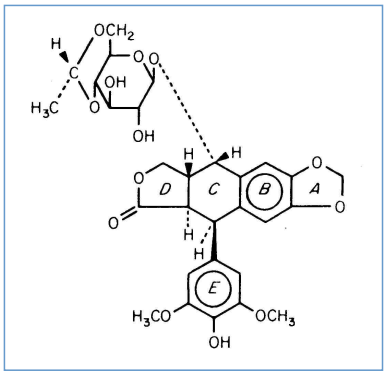
140	Revue	Pearson SD, Trissel LA. Leaching of diethylhexyl phthalate from polyvinyl chloride containers by selected drugs and formulation components. Am J Hosp Pharm 1993 ; 50: 1405-1409.
150	Revue	Aujoulat P, Coze C, Braguer D, Raybaud C. Physicochemical compatibility of methotrexate with co-administered drugs during cancer chemotherapy regimens. J Pharm Clin 1993 ; 12: 31-35.
152	Revue	Chevrier R, Sautou V, Pinon V, Demecop F, Chopineau J. Stability and compatibility of a mixture of the anti-cancer drugs etoposide, cytarabine and daunorubicine for infusion. Pharm Acta Helv 1995 ; 70: 141-148.
161	Revue	Barthes DM, Rochard EB, Pouliquen IJ, Rabouan SM, Courtois PY. Stability and compatibility of etoposide in 0.9% sodium chloride injection in three containers. Am J Hosp Pharm 1994 ; 51: 2706-2709.
169	Revue	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	Revue	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.
184	Revue	Stewart JT, Warren FW, King DT, Fox JL. Stability of ondansetron hydrochloride and five antineoplasic medications. Am J Health-Syst Pharm 1996 ; 53: 1297-1300.
244	Revue	Trissel LA, Martinez JF. Compatibility of filgrastim with selected drugs during simulated Y-site administration. Am J Hosp Pharm 1994 ; 51: 1907-1913.
249	Revue	Trissel LA, Martinez JF. Compatibility of thiotepa (lyophilized) with selected drugs during simulated Y-site administration. Am J Health-Syst Pharm 1996 ; 53: 1041-1045.
251	Revue	Trissel LA, Gilbert DL, Martinez JF. Compatibility of doxorubicin hydrochloride liposome injection with selected other drugs during simulated Y-site administration. Am J Health-Syst Pharm 1997 ; 54: 2708-2713.
307	Revue	Trissel LA, Martinez JF. Compatibility of allopurinol sodium with selected drugs during simulated Y-site administration. Am J Hosp Pharm 1994 ; 51: 1792-1799.
331	Revue	Marquardt ED. Visual compatibility of hydroxyzine hydrochloride with various antineoplasic agents. Am J Hosp Pharm 1988 ; 45: 2127.
334	Revue	Trissel LA, Tramonte SM, Grilley BJ. Visual compatibility of ondansetron hydrochloride with selected drugs during simulated Y-site injection. Am J Hosp Pharm 1991 ; 48: 988-992.
335	Revue	Trissel LA, Bready BB, Kwan JW, Santiago NM. Visual compatibility of sargramostim with selected antineoplasic agents, anti-infectives, or other drugs during simulated Y-site injection. Am J Hosp Pharm 1992 ; 49: 402-406.
417	Revue	Stewart CF, Hampton EM. Stability of cisplatin and etoposide in intravenous admixtures. Am J Hosp Pharm 1989 ; 46: 1400-1404.
482	Revue	Beijnen JH, Beijnen-Bandhoe U, Dubbelman AC, Van Gijn R, Underberg WJM. Chemical and physical stability of etoposide and teniposide in commonly used infusion fluids. J Parenter Sci Technol 1991 ; 45: 108-112.

491	Revue	Turowski RC, Durthaler JM. Visual compatibility of idarubicin hydrochloride with selected drugs during simulated Y-site injection. Am J Hosp Pharm 1991 ; 48: 2181-2184.
492	Revue	Trissel LA, Parks NPT, Santiago NM. Visual compatibility of fludarabine phosphate with antineoplastic drugs, anti-infectives, and other selected drugs during simulated Y-site injection. Am J Hosp Pharm 1991 ; 48: 2186-2189.
504	Revue	Hamon M, Plas-Remoissenet D, Kubab-Alajati S. Etude de la stabilité dans des solutions diluées destinées à la perfusion de deux antimitotiques dérivés de la podophyllotoxine : l'étoposide (VP 16), le téniposide (VM 26). Sci Tech Pharm 1987 ; 3: 33-40.
643	Revue	Seargeant LE, Kobrinsky NL, Sus CJ, Nazeravich DR. In vitro stability and compatibility of daunorubicin, cytarabine, and etoposide. Cancer Treat Rep 1987 ; 71: 1189-1192.
905	Revue	Trissel LA, Martinez JF. Screening teniposide for Y-site physical incompatibilities. Hosp Pharm 1994 ; 29: 1010-1017.
1026	Revue	Mayron D, Gennaro AR. Stability and compatibility of topotecan hydrochloride with selected drugs. Am J Health-Syst Pharm 1999 ; 56: 875-881.
1033	Revue	Wolfe JL, Thoma LA, Du C, Goldspiel BR, Gallelli JF, Grimes GJ, Potti GK. Compatibility and stability of vincristine sulfate, doxorubicin hydrochloride, and etoposide in 0.9% sodium chloride injection. Am J Health-Syst Pharm 1999 ; 56: 985-989.
1423	Revue	Trissel LA, Martinez JF, Gilbert DL. Compatibility of gemcitabine hyrochloride with 107 selected drugs during simulated Y-site injection. J Am Pharm Assoc 1999 ; 39: 514-518.
1496	Revue	Trissel LA, Martinez JF, Gilbert DL. Screening cladribine for Y-site physical compatibility with selected drugs. Hosp Pharm 1996 ; 31: 1425-1428.
1520	Laboratoire	Etude de stabilité des médicaments en Ecoflac® B Braun 2001
1613	Revue	Lepage R, Walker SE, Godin J. Stability and compatibility of etoposide in normal saline. Can J Hosp Pharm 2000 ; 53: 338-345.
1722	Revue	Gras C, Sautou-Miranda V, Bagel-Boithias S, Brigas F, Chopineau J. Compatibility of etoposide solution with polyvinyl chloride and low density polyethylene containers and its stability in different storage conditions. EJHP 2002 ; 2: 33-40.
1730	Revue	Björkman S, Roth B. Chemical compatibility of mitoxantrone and etoposide (VP-16). Act Pharm Nord 1991 ; 3: 251.
1819	Revue	Demoré B, Vigneron J, Perrin A, Hoffman MA, Hoffman M. Leaching of diethyl hexyl phtalate from polyvinyl chloride bags into intravenous etoposide solution. J Clin Pharm Ther 2002 ; 27: 139-142.
1895	Revue	Bourdeaux D, Sautou-Miranda V, Bagel-Boithias S, Boyer A, Chopineau J. Analysis by liquid chromatography and infrared spectrometry of di(2-ethylhexyl)phtalate released by multilayer infusion tubing. J Pharm Biomed Anal 2004 ; 35: 57-64.
1984	Revue	Bagel-Boithias S, Sautou-Miranda V, Bourdeaux D, Tramier V, Boyer A, Chopineau J. Leaching of diethylhexyl phtalate from multilayer tubing into etoposide infusion solutions. Am J Health-Syst Pharm 2005 ; 62: 182-188.

2108	Revue	Trusley C, Kupiec TC, Trissel LA. Compatibility of micafungin injection with other drugs during simulated Y-site co-administration. Int J Pharm Compound 2006 ; 10: 230-232.
2167	Revue	Joel SP, Clark PI, Slevin ML. Stability of the iv and oral formulations of etoposide in solution. Cancer Chemother Pharmacol 1995 ; 37, 1: 117-124.
3574	Laboratoire	Ondansetron - Résumé des caractéristiques du produit Accord Healthcare France SAS 2013
3670	Revue	Sewell G, Massimini M. Studies on the stability and compatibility of cytotoxic drug infusion with the Tevadaptor system. EJOP 2014 ; 8, 3: 26-30.
4024	Poster	Sadou Yaye H, Rieber Z, HassaniI L, Hoffmann-Martinot C, Babiard M, Aouti H, Bellanger A, Tilleul P. Pénurie mondiale d'Etopophos et conséquences pratiques : Intérêt des études de stabilité dans le choix d'un générique. SFPO Congress 2017 - Nantes 2017
4125	Revue	D'Huart E, Vigneron J, Lider P, Demoré B. Physicochemical stability of etoposide diluted at range concentrations between 0.38 and 1.75 mg/mL in polyolefin bags. EJHP 2020 ; 27, 1: 43-48.
4304	Revue	Klasen K, Kessari R, Mercier L, Valade C, Grill J, Desmaris R, Paci A. Stability of Etoposide Solutions in Disposable Infusion Devices for Day Hospital Cancer Practices. Drugs R D 2014 ; 14:13?23.
4352	Revue	Li J, Yao C, Xu Y, Ping P, Yin H, Sun Y. In vitro compatibility and stability of admixtures containing etoposide, epirubicin hydrochloride and vindesine sulphate in a single infusion bag. J Clin Pharm Ther 2019 ; 44: 875-882.
4369	Revue	Sadou Yayé H, Hassani L, Secrétan PH, Babiard M, Aouati H, Bellanger A, Tilleul P, Yagoubi N, Do B, Rietveld I. Physical and chemical stability of a generic etoposide formulation as an alternative to etoposide phosphate J Pharm Biomed Anal 2020 ;178:112896
4927	Poster	Jegaden S, Boucida M, Alloh D, Claraz P, Roupret-Serzec J, Storme T, Rioblanc F. Préparation d'étoposide injectable concentrée à 10 mg/mL : intérêts et stabilité physicochimique. GERPAC Congress 2024
5077	Laboratoire	ETOPOSIDE VIATRIS 20 mg/ml, solution à diluer pour perfusion - Résumé des caractéristiques du produit. VIATRIS SANTE 2024

Stabilis

Etoposide



Stabilité des préparations

		20 mg Vepeside®	NaCl 0.9% >>2 ml	2-8°C		31			1992
		20 mg Vepeside®	NaCl 0.9% >>2 ml	20-25°C	±	31			1992
		50 mg VePesid®	NaCl 0.9% >> 5 ml	22°C	±	22			2482

Bibliographie

	Type	Source
1992	Revue	Drouard, VigneronJ, May I. Traitement par étoposide oral : présentation adaptée à une meilleure observance pédiatrique hospitalière. J Pharm Clin 1999 ; 18, 3: 251-257.
2482	Revue	McLeod HL, Relling MV. Stability of etoposide solution for oral use Am J Hosp Pharm 1992 ; 49: 2784-2785.

Dictionnaire

	Anticancéreux		injectable
	Noms commerciaux		Stabilité des solutions
	Contenant		Molécule
	Concentration		Température
	Conservation		Durée de stabilité
	Biosimilaire		Données conflictuelles
	Bibliographie		Verre
	Chlorure de sodium 0,9%		Lumière
	Jour		A l'abri de la lumière
?	Non précisée		Heure
	Glucose 5%	RL	Ringer lactate
PVC	Polyvinyl chlorure	PE	Polyéthylène
	Avec ou sans lumière	PP	Polypropylène
POF	Polyolefine	PI	Elastomère en polyisoprène
	Stabilité en mélange		Solvant
	Molécule		NaCl 0,45% Glucose 5%
?	Non précisé	Ø	Aucun
	Facteur influençant la stabilité		Provoque
	Relargage		Précipitation
	Compatibilités		Compatible
	NaCl 0,9% + bactériosatique		Précipitation immédiate
	Incompatible		Précipitation en 1 heure
	Dégagement gazeux	NaH CO3	NaHCO3
	Voie d'administration		Perfusion intraveineuse
	Bibliographie		Solution buvable
	Stabilité des préparations		Origine
	Excipient		Seringue PP orale
	Flacon injectable		Dictionnaire