

Load calculation DAP Brussels 1.41 € per bottle 590 000/390000

a) pallets

120x80 cm

fits obviously well with a trailer which is 2.43 m wide

4 cases x 6 lays = 24 cases

24 cases x 12 bottles

288 bottles

114 cm

which is less than 120 cm

76 cm

less than 80

Because 0.80/0.38 m

180 cm

high

1.20/ 0.57 m

which is obviously the best way to 33 pallets

13,4/1,2

is 11

x 3

so 33 pallets x 288 bottles is 9504 bottles per trip

then weight is

17 kg x 24 cases

and 22 Kg pallet

is 430 kg

so total of 33 pallets 430 kg x 33 = 14 190 kg which definitely less than weight limit in a trailer which is 24 t

115 x 115 cm

fits obviously well with a 40' container which is 2.33 m wide

6 cases x 6 lays which is 36 cartons

resulting in 36 cases x 12 bottles = 432 bottles

20 pallets x 432 bottles are **8640 bottles** per trip 12.01 / 1.15 x 2

weight of 1 pallet is 17 kg x 36 cases and 18 kg for the empty pallet which is

630 kg

Weight of 20 pallets : 630 kg x 20 = 12 600 kg quite lower than 22 t

32500 cartons

b) first option calculation

transport cost

1.08 € x 2 550 km + 265€ Ferry + 25 € port tax

and 180 €

motorway toll

Total 3224 €

3224 € / 9504 bottles

is 0.34 € bottle

DAP Destination is **1.41 €**

8.09 x 4.5 h

from 2550 / 70 km/h i.e. 36.43 / 4.5 h

is 4 days !

Second option calculation

transport cost

For a trailer non accompanied

COMANAV

0.85 € x 385 kms and 700 € Ferry and 1.35 € x 1220 km

Total 2674.325 €

IS 0.28 € bottle

DAP destination is **1.41 €**

3 round trips a week

transit time

7 h and 27 hours and 48 hours

i.e. 82 hours

Third option by sea

40' according to CGM quotation

From FCA to FOB Tangier €

Pick up charge 442 €

Multi stop customs 28 €

Bill of lading fee 36 €

THC Tangier 100 €

Security charge 15 €

FOB Tangier charge 621,00 €

Sea freight to Antwerp 454,55 €

Low sulphur charge 18,18 €

CAF 13.93 % 65,85 €

1 159,58 €

(insurance is missing)

Transport to Brussels 450,00 €

Cleaning charges at dest 70,00 €

1 679,58 €

per bottle **0,19 €**

DAP price is 1.41 €

1,41025641 per bottle DDP**Considering low price the sea possibility seems attractive****option 1 in case of emergency seems appropriate**

Rating out of 10	pondération	Option 1	Score	Option 2		Option 3	
Route		Road		mixed		Sea	
Transit time	2	9	18	6	12	3	6
Reliability	2	5	10	4	8	9	18
Flexibility	1	10	10	4	4	1	1
tracking	1	6	6	3	3	9	9
Conformity	2	9	18	6	12	4	8
Risk	3	7	21	4	12	4	12

Price pe bottle	4	0.34 €	8	0.28 €	16	0.19 €	40
			91		67		

Simulation : take care of sea transport to cover the risk as the minimum is 2 SDR per kg

94

Week	Forecasts	Shipment	Received	Balance	cost
14	7500	1x40'	8640	1140	1 641,60 €
15	7500	1x40'	8640	2280	1 641,60 €
16	7500	1x40'	8640	3420	1 641,60 €
17	7500	1x40'	8640	4560	1 641,60 €
18	10000	1x40'	8640	3200	1 641,60 €
19	10000	1x40'	8640	1840	1 641,60 €
20	10000	1x40'	8640	480	1 641,60 €
21	10000	1x40'	8640	-880	1 641,60 €
22	15000	2x40'	17280	1400	3 283,20 €
23	15000	2x40'	17280	3680	3 283,20 €
24	18000	2x40'	17280	2960	3 283,20 €
25	20000	2x40'	17280	240	3 283,20 €
26	22000	3x40'	25920	4160	4 924,80 €
27	24000	3x40'	25920	6080	4 924,80 €
28	26000	3x40'	25920	6000	4 924,80 €
29	26000	3x40'	25920	5920	4 924,80 €
30	28000	3x40'	25920	3840	4 924,80 €
31	20000	2x40'	17280	1120	3 283,20 €
32	16000	2x40'	17280	2400	3 283,20 €
33	16000	2x40'	17280	3680	3 283,20 €
34	18000	2x40'	17280	2960	3 283,20 €
35	17000	2x40'	17280	3240	3 283,20 €
36	15000	2x40'	17280	5520	3 283,20 €
37	12000	1x40'	8640	2160	1 641,60 €
38	12000	1 trailer	9504	-336	3 231,36 €
	390000		389664		75 461,76 €
			COST PER BOTTLE		<u>0,19 €</u>