

Test Report

Report No. : AGC05443220435-001

- **SAMPLE NAME** : PP lunch box with cutlery
- MODEL NAME : MO6646
- **APPLICANT** : MID OCEAN BRANDS B.V
- **STANDARD(S)** : Please refer to the following page(s).
- **DATE OF ISSUE** : May 16, 2022





Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

 Attestation of Global Compliance(Shenzhen)Co., Ltd

 Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd

 Tel: +86-755 2523 4088
 E-mail: agc@agccert.com
 Web: http://www.agccert.com/



Applicant	:	MID OCEAN BRANDS B.V
A ddmaga		7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon,
Address	:	Hong Kong.
Test Site		2,6/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Test Site	:	Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Report on the submitted sample(s) said to be:

Sample Name	:	PP lunch box with cutlery
Model	:	MO6646
Vendor code	:	106613
Country of Origin	:	CHINA
Country of Destination	:	EUROPE
Sample Received Date	:	Apr.20, 2022
Testing Period	:	Apr.20, 2022 to May 16, 2022

Approved by: Lovel

Approved by: _____

Qinlianzhi, Reed Laboratory Supervisor Liangdan, Jessie.Liang Technical Director



Report Revise Record

Report Version	Issued Date	Valid Version	Notes
/	May 16, 2022	Valid	Initial release



Conclusion **Test Requested:** 1. As specified by client, to determine the Phthalates content in the submitted sample(s) with reference to entry 51&52, Annex XVII of the REACH Regulation (EC) No Pass 1907/2006. 2. As specified by client, to determine the Cadmium(Cd) content in the submitted sample(s) with reference to entry 23, Annex XVII of the REACH Regulation (EC) Pass No 1907/2006. 3. As specified by client, to determine the Lead(Pb) content in the submitted sample(s) with reference to entry 63, Annex XVII of the REACH Regulation (EC) No Pass 1907/2006. 4. As specified by client, to determined for mechanical dishwashing safe test. 5. As specified by client, to determined for microwave test. As specified by client, the following items are determined in the submitted sample 6. with reference to the Regulation 1935/2004/EC, Regulation (EU) 2018/213& Regulation (EU) 2020/1245 and Council of Europe Resolution AP(2004)5: - Overall Migration Pass - Bisphenol A(BPA) content Pass - Specific migration of Bisphenol A(BPA) Pass As specified by client, to test sample with reference to DM-4B-COM-003-v01, 7. Regulation 1935/2004/EC, Regulation (EU) No 10/2011 &(EU)2020/1245 for: -Volatile Organic Matter Pass - Peroxide value Pass Pass - Specific Migration of Organotin (measured as Tin) As specified by client, the following items are determined in the submitted sample 8. with reference to the Regulation 1935/2004/EC, Regulation(EU) No 10/2011 and Regulation (EU) 2020/1245: - Overall Migration Pass Pass - Bisphenol A(BPA) content Pass - Specific migration of Bisphenol A(BPA) - Specific migration of Primary Aromatic Amine Pass - Specific migration of Heavy metals Pass

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Attestation of Global Compliance(Shenzhen)Co., Ltd



Test Result(s):

1. Test Result of Phthalates Content

Test Item	Test Method/ Instrument	MDL	Limit
Diisobutyl phthalate(DIBP)		0.010%	
(CAS No.: 84-69-5)		0.01070	
Dibutyl phthalate (DBP)		0.010%	
(CAS No.: 84-74-2)		0.01070	Single<0.1%
Butylbenzyl phthalate (BBP)		0.010%	Sum<0.1%
(CAS No.: 85-68-7)		0.01070	
Di-(2-ethylhexyl) Phthalate (DEHP)		0.010%	
(CAS No.: 117-81-7)	EN 14372:2004/ GC-MS	0.01070	
Di-n-octyl phthalate (DNOP)		0.010%	
(CAS No.: 117-84-0)		0.01070	
Di-isononyl phthalate (DINP)		0.010%	G (0.10/
(CAS No.: 28553-12-0; 68515-48-0)	_	0.01070	Sum<0.1%
Di-isodecyl phthalate(DIDP)		0.0100/	
(CAS No.: 26761-40-0; 68515-49-1)		0.010%	

Test		Test result (%)								
point	DIBP	DBP	BBP	DEHP	Sum(DIBP+DBP +BBP+DEHP)	DNOP	DINP	DIDP	Sum(DNOP+ DINP+DIDP)	Conclusion
1-1△	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	Conformity
1-2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	Conformity
1-3△	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	Conformity
1-4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	Conformity

2. Test Result of Cadmium(Cd) Content

Test Item	Cadmium(Cd) (CAS No.: 7440-43-9)
Limit(mg/kg)	<100
MDL(mg/kg)	10
Test Method/ Instrument	IEC 62321-5:2013/ ICP-OES

Test point	Test result (mg/kg)	Conclusion
	Cadmium(Cd)	Conclusion
1-1△	N.D.	Conformity
1-2	N.D.	Conformity
1-3△	N.D.	Conformity
1-4	N.D.	Conformity



3. Test Result of Lead(Pb) Content

Test Item	Lead(Pb) (CAS No.: 7439-92-1)
Limit(mg/kg)	<500
MDL(mg/kg)	10
Test Method/ Instrument	IEC 62321-5:2013/ ICP-OES

Test point	Test result (mg/kg)	Conclusion
	Lead(Pb)	
1-1△	N.D.	Conformity
1-2	N.D.	Conformity
1-3△	N.D.	Conformity
1-4	N.D.	Conformity

4. Test Result of mechanical dishwashing safe test:

Test method: BS EN 12875-1:2005 Washing temperature: 60℃

Number of cycle: Ten (10) cycles

Number of tested sample: 2 (Two) pc(s).

Number of control sample: 1 (One) pc(s).

For all tested plastic articles:

- 1) No visible change of color, gloss and clouding was found on the tested samples after wash.
- ²⁾ No visible deposit or iridescent layer was found on the tested samples after wash.
- 3) No visible swelling, deformation, cracking, crazing or delamination was found on the tested samples after wash.

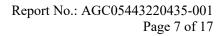


5. Test Result of microwave test: Sample: Black lunch box Test method: BS EN 15284-2007 Microwave power out: 533W Short period: 135 s Long period: 878 s Number of tested sample: 1 (One) pc(s). Number of control sample: 1 (One) pc(s).

Specimen(s)	Maximum handle temperature after short period of heating	Maximum surface temperature after long period of heating
1(Lunch box)	/	75.9℃
2(Fork)	26.2°C	61.7°C
3(Spoon)	26.5°C	57.8°C

For all tested plastic articles:

- 1) No visible change of color was found on the tested samples after test.
- 2) No visible cracking, deformation was found on the tested samples after test.
- 3) No melting, charring was found on the tested samples after wash.
- 4) The tested samples still suitability to re-use after test.





Sample: White lunch box

Test method: BS EN 15284-2007 Microwave power out: 533W Short period: 135 s Long period: 878 s Number of tested sample: 1 (One) pc(s). Number of control sample: 1 (One) pc(s).

Specimen(s)	Maximum handle temperature after short period of heating	Maximum surface temperature after long period of heating
1(Lunch box)	/	72.5℃
2(Fork)	25.9℃	56.8°C
3(Spoon)	27.5°C	54.3°C

For all tested plastic articles:

- 1) No visible change of color was found on the tested samples after test.
- 2) No visible cracking, deformation was found on the tested samples after test.
- 3) No melting, charring was found on the tested samples after wash.
- 4) The tested samples still suitability to re-use after test.

6.1 Test Result(s) of Overall Migration

Test point	Test I		
	Overall migrat	Conclusion	
	3% Acetic acid, 70°C,2h	50% Ethanol, 70°C,2h	
1-4	N.D.	N.D.	Conformity
Limit	10	10	/
MDL	5	5	/



6.2 Test Result(s) of Bisphenol A(BPA) content

Test Item	Bisphenol A (BPA)	
Limit (Client's Requirement) (mg/kg)	Absent	
MDL(mg/kg)	1	
Test Method/ Instrument	EPA 3540C:1996& EPA 8321B:2007/ LC-MS-MS	

Test point	Test Result (mg/kg)	Conclusion
Test point	Bisphenol A (BPA)	Conclusion
1-4	N.D.	Conformity

6.3 Test Result(s) of Specific migration of Bisphenol A(BPA)

	Test Result	
Test point	Specific migration of Bisphenol A(BPA)/ (mg/kg)	Conclusion
	3% Acetic acid, 70°C,2h	
1-4	N.D.	Conformity
Limit (Client's Requirement)	0.05	/
MDL	0.02	/

7.1 Test Result(s) of Volatile Organic Matter

Test method: DGCCRF-2004-64

				Unit: %
T + : + (-)	Test Car litter	MDI	Result(s)	T :
Test item(s)	Test Condition	MDL	1-4	Limit
Volatile Organic Matter		0.1	N.D.	0.5
Conclusion	70°C, 2h	/	Conformity	/

7.2 Test Result(s) of Peroxide value

Unit: %

Test Item	MDL	Result(s)	Limit
Peroxide value	0.2	N.D.	Absent
Conclusion	/	Conformity	/



7.3 Test Result(s) of Specific Migration of Organotin (measured as Tin)

Test point	Test Result Specific Migration of Organotin (measured as Tin)/ (mg/kg) 3% Acetic acid, 70°C,2h	Conclusion
1-4	N.D.	Conformity
Limit	0.1	/
MDL	0.01	/

8.1 Test Result(s) of Overall Migration

		Test	Result	
	Test point	Overall migra	Overall migration/ (mg/dm ²) Conclusi	Conclusion
		3% Acetic acid, 70°C,2h	50% Ethanol, 70°C,2h	
	1 st migration	N.D.	N.D.	
1-5	2 nd migration	N.D.	N.D.	Conformity
	3 rd migration	N.D.	N.D.	
	1 st migration	N.D.	5.6	
1-6	2 nd migration	N.D.	N.D.	Conformity
	3 rd migration	N.D.	N.D.	
	Limit	10	10	/
	MDL	5	5	/



8.2 Test Result(s) of Bisphenol A(BPA) content

Test Item	Bisphenol A (BPA)	
Limit (mg/kg)	Absent	
MDL(mg/kg)	1	
Test Method/ Instrument	EPA 3540C:1996& EPA 8321B:2007/ LC-MS-MS	

Test point	Test Result (mg/kg)	Conclusion
Test point	Bisphenol A (BPA)	Conclusion
1-5	N.D.	Conformity
1-6	N.D.	Conformity

8.3 Test Result(s) of Specific migration of Bisphenol A(BPA)

		Test Result	
Test	point	Specific migration of Bisphenol A(BPA)/ (mg/kg)	Conclusion
		3% Acetic acid, 70°C,2h	
	1 st migration	N.D.	
1-5	2 nd migration	N.D.	Conformity
	3 rd migration	N.D.	
	1 st migration	N.D.	
1-6	2 nd migration	N.D.	Conformity
	3 rd migration	N.D.	
L	imit	0.05	/
Μ	IDL	0.02	/



8.4 Test Result(s) Specific migration of Primary Aromatic Amine

Test Item(s)	MDL (mg/kg)	Limit (mg/kg)
4-Aminobiphenyl	0.002	N.D.
Benzidine	0.002	N.D.
4-Chloro-o-Toluidine	0.002	N.D.
2-Naphthylamine	0.002	N.D.
4-amino-2',3-dimethylazobenzene	0.002	N.D.
5-Nitro-o-toluidine	0.002	N.D.
4-Chloroaniline	0.002	N.D.
4-Methoxy-m-phenylenediamine	0.002	N.D.
4,4'-Diaminodiphenylmethane	0.002	N.D.
3,3'-Dichlorobenzidine	0.002	N.D.
3,3'-Dimethoxybenzidine	0.002	N.D.
3,3'-Dimethybenzidine	0.002	N.D.
4,4'-Methylenedi-o-toluidine	0.002	N.D.
6-methoxy-m-toluidine	0.002	N.D.
4,4'-methylenebis[2-chloroaniline]	0.002	N.D.
4,4'-Oxydianiline	0.002	N.D.
4,4'-Thiodianiline	0.002	N.D.
2-Aminotoluene	0.002	N.D.
4-methyl-m-phenylenediamine	0.002	N.D.
2,4,5-Trimethylaniline	0.002	N.D.
2-Methoxyaniline	0.002	N.D.
4-Aminoazobenzene	0.002	N.D.
1,3 phenylenediamine	0.002	N.D.
Total of other primary aromatic amines	0.01	0.01



	Test Result (mg/kg)		
Test Item(s)	1-5	1-6	
	3% Acetic acid 70°C, 2h	3% Acetic acid 70°C, 2h	
4-Aminobiphenyl	N.D.	N.D.	
Benzidine	N.D.	N.D.	
4-Chloro-o-Toluidine	N.D.	N.D.	
2-Naphthylamine	N.D.	N.D.	
4-amino-2',3-dimethylazobenzene	N.D.	N.D.	
5-Nitro-o-toluidine	N.D.	N.D.	
4-Chloroaniline	N.D.	N.D.	
4-Methoxy-m-phenylenediamine	N.D.	N.D.	
4,4'-Diaminodiphenylmethane	N.D.	N.D.	
3,3'-Dichlorobenzidine	N.D.	N.D.	
3,3'-Dimethoxybenzidine	N.D.	N.D.	
3,3'-Dimethybenzidine	N.D.	N.D.	
4,4'-Methylenedi-o-toluidine	N.D.	N.D.	
6-methoxy-m-toluidine	N.D.	N.D.	
4,4'-methylenebis[2-chloroaniline]	N.D.	N.D.	
4,4'-Oxydianiline	N.D.	N.D.	
4,4'-Thiodianiline	N.D.	N.D.	
2-Aminotoluene	N.D.	N.D.	
4-methyl-m-phenylenediamine	N.D.	N.D.	
2,4,5-Trimethylaniline	N.D.	N.D.	
2-Methoxyaniline	N.D.	N.D.	
4-Aminoazobenzene	N.D.	N.D.	
1,3 phenylenediamine	N.D.	N.D.	
Total of other primary aromatic amines	N.D.	N.D.	
Conclusion	Conformity	Conformity	



8.5 Test Result(s) Specific migration of Heavy metals

Test Item(s)	Test condition/ Equipment	MDL (mg/kg)	Test Result(s) (mg/kg)			Limit (mg/kg)
			1-5			
			1 st migration	2 nd migration	3 rd migration	
Barium (Ba)		0.1	N.D.	N.D.	N.D.	1
Cobalt (Co)		0.01	N.D.	N.D.	N.D.	0.05
Copper (Cu)		0.25	N.D.	N.D.	N.D.	5
Iron (Fe)		0.25	N.D.	N.D.	N.D.	48
Lithium (Li)		0.1	N.D.	N.D.	N.D.	0.6
Manganese (Mn)		0.1	N.D.	N.D.	N.D.	0.6
Zinc (Zn)		0.25	N.D.	N.D.	N.D.	5
Aluminum (Al)		0.1	N.D.	N.D.	N.D.	1
Europium (Eu)		0.01	N.D.	N.D.	N.D.	/
Gadolinium (Gd)		0.01	N.D.	N.D.	N.D.	/
Lanthanum (La)	3% Acetic acid/ 40°C, 2h/ ICP-OES/ IC	0.01	N.D.	N.D.	N.D.	/
Terbium (Tb)		0.01	N.D.	N.D.	N.D.	/
Sum(Eu+Gd+La+Tb)		/	N.D.	N.D.	N.D.	0.05
Antimony (Sb)		0.01	N.D.	N.D.	N.D.	0.04
Arsenic (As)		0.01	N.D.	N.D.	N.D.	N.D.
Cadmium (Cd)		0.002	N.D.	N.D.	N.D.	N.D.
Chromium (Cr)		0.01	N.D.	N.D.	N.D.	N.D.
Lead (Pb)		0.01	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)		0.01	N.D.	N.D.	N.D.	N.D.
Nickel (Ni)		0.01	N.D.	N.D.	N.D.	0.02
Conclusion		/	Conformity			/
Ammonium (NH ₄ ⁺)		0.10	N.D.	N.D.	N.D.	/
Calcium (Ca)		0.01	0.026	N.D.	N.D.	/
Magnesium (Mg)		0.01	N.D.	N.D.	N.D.	/
Potassium (K)		0.01	0.068	N.D.	N.D.	/
Sodium (Na)		0.01	0.069	N.D.	N.D.	/

R	

Test Item(s)	Test condition/ Equipment	MDL (mg/kg)	Test Result(s) (mg/kg)			Limit (mg/kg)
			1-6			
			1 st migration	2 nd migration	3 rd migration	
Barium (Ba)		0.1	N.D.	N.D.	N.D.	1
Cobalt (Co)		0.01	N.D.	N.D.	N.D.	0.05
Copper (Cu)		0.25	N.D.	N.D.	N.D.	5
Iron (Fe)		0.25	N.D.	N.D.	N.D.	48
Lithium (Li)	-	0.1	N.D.	N.D.	N.D.	0.6
Manganese (Mn)		0.1	N.D.	N.D.	N.D.	0.6
Zinc (Zn)	-	0.25	N.D.	N.D.	N.D.	5
Aluminum (Al)	-	0.1	N.D.	N.D.	N.D.	1
Europium (Eu)		0.01	N.D.	N.D.	N.D.	/
Gadolinium (Gd)		0.01	N.D.	N.D.	N.D.	/
Lanthanum (La)	3% Acetic acid/ 40°C, 2h/ ICP-OES/ IC	0.01	N.D.	N.D.	N.D.	/
Terbium (Tb)		0.01	N.D.	N.D.	N.D.	/
Sum(Eu+Gd+La+Tb)		/	N.D.	N.D.	N.D.	0.05
Antimony (Sb)		0.01	N.D.	N.D.	N.D.	0.04
Arsenic (As)		0.01	N.D.	N.D.	N.D.	N.D.
Cadmium (Cd)		0.002	N.D.	N.D.	N.D.	N.D.
Chromium (Cr)	-	0.01	N.D.	N.D.	N.D.	N.D.
Lead (Pb)	-	0.01	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)		0.01	N.D.	N.D.	N.D.	N.D.
Nickel (Ni)		0.01	N.D.	N.D.	N.D.	0.02
Conclusion	-	/	Conformity			/
Ammonium (NH ₄ ⁺)	-	0.10	N.D.	N.D.	N.D.	/
Calcium (Ca)		0.01	0.317	N.D.	N.D.	/
Magnesium (Mg)		0.01	N.D.	N.D.	N.D.	/
Potassium (K)		0.01	0.043	N.D.	N.D.	/
Sodium (Na)		0.01	0.044	N.D.	N.D.	/

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Attestation of Global Compliance(Shenzhen)Co., Ltd

Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd

Tel: +86-755 2523 4088 E-mail: agc@agccert.com Web: http://www.agccert.com/



Note:

mg/kg = milligram per kilogram

% = percentage

mg/dm²= milligrams per decimeter squared N.D.=Not Detected (less than method detection limit)

MDL = Method Detection Limit

Remark:

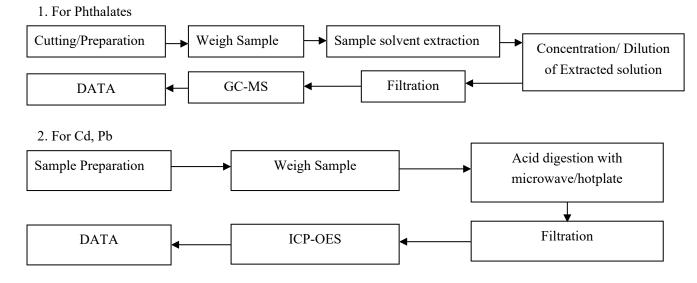
- As specified by client, only test the designated sample.
- \triangle = As specified by client, the submitted samples were mixed to test.

Test Point Description

Test point	Test point description	
1-1	White plastic lunch box+White plastic cutlery	
1-2	Transparent plastic cover	
1-3	Black plastic lunch box+Black plastic cutlery	
1-4	White silicone sealing	
1-5	White plastic lunch box	
1-6	Black plastic lunch box	



Test Flow Chart



Test result of Volatile Organic Matter on specimen No.1-4 was resubmitted sample on May 10, 2022.



The photo of the sample





AGC05443220435-001

AGC authenticate the photo only on original report *** End of Report ***



Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Std & Tech Co., Ltd. (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.

3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

7.Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.