

Applicant: Doosan Corporation Electro-MaterialsAddress: 40, Doosan-ro, Jeungpyeong-eup, Jeungpyeong-gun,
Chungcheongbuk-do, Korea

 Page: 1 of 5

 Report No. RT17R-S0270-002-E9
 Date: Jan. 23, 2017

| Sample Description | : The following submitted sample(s) said to be:- | | | |
|----------------------|--------------------------------------------------|--|--|--|
| Name/Type of Product | : DS-7408 | | | |
| Sample ID No. | : RT17R-S0270-002 | | | |
| Manufacturer/Vendor | : Doosan Corporation Electro-Materials | | | |
| Sample received | : Jan. 12, 2017 | | | |
| Testing Date | : Jan. 12, 2017~ Jan. 23, 2017 | | | |
| Test Method(s) | : Please see the following page(s). | | | |
| Test Result(s) | : Please see the following page(s). | | | |

* Note 1 : The test results presented in this report relate only to the object tested.

* Note 2 : This report shall not be reproduced except in full without the written approval of the testing laboratory.

Approved by,

2624

Jade Jang / Lab. Technical Manager

Authorized by,

me



Bo Park / Lab. General Manager

Intertek Testing Services Korea Ltd.

Seoul Office: Tel : 02-6090-9550 Fax : 02-3409-0025 Daegu Office : Tel : 053-600-8647 Fax : 053-600-8645 Web Site : www.intertek.co.kr Seoul Lab. Address : 7, Achasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea Ulsan Lab. Address : 34, Yongam-gil, Chongryang-myeon, Ulju-gun, Ulsan 44989 Korea



* You can verify the forgery and authenticity by the barcode at the end of this document.



Report No. RT17R-S0270-002-E9

Page: 2 of 5 Date: Jan. 23, 2017

Sample ID No.: RT17R-S0270-002Sample Description: DS-7408

| Test Item | CAS No. | Unit | Test Method | MDL | Result | |
|--------------------------------------|--------------------------|-------|----------------------------------------------------------------------------------------------------------|-----|--------|--|
| Phthalates | | | | | | |
| Dibutyl phthalate (DBP) | 84-74-2 | mg/kg | With reference to IEC 62321-8 (111/321/CD), by solvent extraction and determined by GC/MS | 50 | N.D. | |
| Di(2-ethylhexyl) phthalate (DEHP) | 117-81-7 | mg/kg | | 50 | N.D. | |
| Di-n-octyl phthalate (DNOP) | 117-84-0 | mg/kg | | 50 | N.D. | |
| Diisononyl phthalate (DINP) | 28553-12-0 68515-48-0 | mg/kg | | 100 | N.D. | |
| Diisodecyl phthalate (DIDP) | 26761-40-0 68515-49-1 | mg/kg | | 100 | N.D. | |
| Benzyl butyl phthalate (BBP) | 85-68-7 | mg/kg | | 50 | N.D. | |
| Diisobutyl phthalate (DIBP) | 84-69-5 | mg/kg | | 50 | N.D. | |
| Dimethyl phthalate (DMP) | 131-11-3 | mg/kg | | 50 | N.D. | |
| Diethyl phthalate (DEP) | 84-66-2 | mg/kg | | 50 | N.D. | |

Tested by : Sujung Lee

Notes : mg/kg = ppm = parts per million < = Less than N.D. = Not detected (<MDL) MDL = Method detection limit

Intertek Testing Services Korea Ltd.

Seoul Office: Tel : 02-6090-9550 Fax : 02-3409-0025 Daegu Office : Tel : 053-600-8647 Fax : 053-600-8645 Web Site : www.intertek.co.kr

Seoul Lab. Address : 7, Achasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea Ulsan Lab. Address : 34, Yongam-gil, Chongryang-myeon, Ulju-gun, Ulsan 44989 Korea



* You can verify the forgery and authenticity by the barcode at the end of this document.



Report No. RT17R-S0270-002-E9

Sample ID No. : RT17R-S0270-002 Sample Description : DS-7408

Test Item CAS No. Unit Test Method MDL Result Di-n-pentyl phthalate 131-18-0 mg/kg 50 N.D. (DPP) Di-n-hexyl phthalate 84-75-3 50 N.D. mg/kg (DNHP) 1,2-Benzenedicarboxylic acid, With reference to di-C6-8-branched alkyl esters, 71888-89-6 mg/kg IEC 62321-8 50 N.D. C7-rich (DIHP) (111/321/CD), 1,2-Benzenedicarboxylic acid, by solvent extraction di-C7-11-branched and linear 68515-42-4 mg/kg and determined by 50 N.D. alkyl esters (DHNUP) GC/MS Di(2-methoxyethyl) phthalate 117-82-8 mg/kg 50 N.D. (DMEP) Diisopentyl phthalate 605-50-5 mg/kg 50 N.D. (DIPP)

Tested by : Sujung Lee

Notes : mg/kg = ppm = parts per million < = Less than N.D. = Not detected (<MDL) MDL = Method detection limit

Intertek Testing Services Korea Ltd.

Seoul Office: Tel : 02-6090-9550 Fax : 02-3409-0025 Daegu Office : Tel : 053-600-8647 Fax : 053-600-8645 Web Site : www.intertek.co.kr Seoul Lab. Address : 7, Achasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea

Ulsan Lab. Address : 34, Yongam-gil, Chongryang-myeon, Ulju-gun, Ulsan 44989 Korea



* You can verify the forgery and authenticity by the barcode at the end of this document.

Page: 3 of 5 Date: Jan. 23, 2017



Report No. RT17R-S0270-002-E9

Page: 4 of 5 Date: Jan. 23, 2017

Sample ID No.: RT17R-S0270-002Sample Description: DS-7408

* View of sample as received;-



Intertek Testing Services Korea Ltd.

Seoul Office: Tel : 02-6090-9550 Fax : 02-3409-0025 Daegu Office : Tel : 053-600-8647 Fax : 053-600-8645 Web Site : www.intertek.co.kr Seoul Lab. Address : 7, Achasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea Ulsan Lab. Address : 34, Yongam-gil, Chongryang-myeon, Ulju-gun, Ulsan 44989 Korea

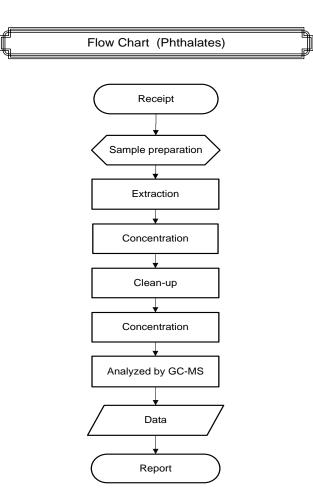


* You can verify the forgery and authenticity by the barcode at the end of this document.



Report No. RT17R-S0270-002-E9

Sample ID No. : RT17R-S0270-002 : DS-7408 Sample Description



***** End of Report *****

Except where explicitly agreed in writing, all work and services performed by Intertek is subject to our standard Terms and Conditions which can be obtained at our website: http://www.intertek.com/terms/. Intertek's responsibility and liability are limited to the terms and conditions of the agreement.

This report is made solely on the basis of your instructions and / or information and materials supplied by you and provide no warranty on the tested sample(s) be truly representative of the sample source. The report is not intended to be a recommendation for any particular course of action, you are responsible for acting as you see fit on the basis of the report results. Intertek is under no obligation to refer to or report upon any facts or circumstances which are outside the specific instructions received and accepts no responsibility to any parties whatsoever, following the issue of the report, for any matters arising outside the agreed scope of the works. This report does not discharge or release you from your legal obligations and duties to any other person. You are the only one authorized to permit copying or distribution of this report (and then only in its entirety). Any such third parties to whom this report may be circulated rely on the copying to find the report (and then only in its entirety). Any such third parties to whom this report may be circulated rely on the content of the report solely at their own risk

This report shall not be reproduced, except in full.

Intertek Testing Services Korea Ltd.

Seoul Office: Tel: 02-6090-9550 Fax: 02-3409-0025 Daegu Office: Tel: 053-600-8647 Fax: 053-600-8645 Web Site : www.intertek.co.kr Seoul Lab. Address : 7, Achasan-ro 5-gil, Seongdong-gu, Seoul, 04793 Korea

Ulsan Lab. Address : 34, Yongam-gil, Chongryang-myeon, Ulju-gun, Ulsan 44989 Korea



4

Page: 5 of 5 Date: Jan. 23, 2017

※ You can verify the forgery and authenticity by the barcode at the end of this document.