

# TEST REPORT

Reference No. : TRHZ1207110\_R2

Date : Jul. 18, 2012

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The following merchandise was (were) submitted and identified by the client as:

Name of Product : SPRAYERS & PUMP  
Test Model : SR300  
Model May Cover : SR101\SR109\SR201\SR202\SR302\SR303\SR305\SR307\SR310\  
SR311\SR312\SR608\SR701\SR702  
Sample Received : Jul. 03, 2012  
Test Period : Jul. 03, 2012 - Jul. 06, 2012  
Test Request : According to European Commission Regulation 1907/2006 (REACH Act), to  
test the SVHC content which have been listed in ECHA's SVHC candidate list  
till 18 Jun. 2012.  
<http://echa.europa.eu/web/guest/candidate-list-table>  
Test Method : In-house method with reference to EPA8270D, EPA 3052, EPA 3050B,  
EPA 6010C, EPA 3550C and EN14362, DIN EN ISO 17353, IEC 62321,  
ZEK01.4-08, EN 14582.  
Conclusion : According to the analyzed result on submitted samples, the contents of  
mentioned test items **are less than 0.1%**.

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**THIS REPORT IS TO SUPERSEDE TEST REPORT TRHZ1207110\_R1.**

Issued by:



TUV NORD (Hang Zhou)  
Green Product Service Centre Manager

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## TEST RESULTS:

Seq.	Test Item(s)	EC. No.	CAS No.	MDL (%)	Test Results <sup>▲</sup> (%)
1	2,4-Dinitrotoluene	204-450-0	121-14-2	0.01	N.D.
2	2-Ethoxyethanol	203-804-1	110-80-5	0.005	N.D.
3	2-Methoxyethanol	203-713-7	109-86-4	0.005	N.D.
4	4,4'- Diaminodiphenylmethane	202-974-4	101-77-9	0.005	N.D.
5	5-tert-butyl-2,4,6-trinitro-m-xylene	201-329-4	81-15-2	0.005	N.D.
6	Acrylamide	201-173-7	79-06-1	0.01	N.D.
7	Alkanes, C <sub>10-13</sub> , chloro	287-476-5	85535-84-8	0.005	N.D.
8	Ammonium dichromate*	232-143-1	7789-09-5	0.01	N.D.
9	Anthracene	204-371-1	120-12-7	0.005	N.D.
10	Anthracene oil	292-602-7	90640-80-5	0.01	N.D.
11	Anthracene oil, anthracene paste	292-603-2	90640-81-6	0.01	N.D.
12	Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2	0.01	N.D.
13	Anthracene oil, anthracene paste; distn. Lights	295-278-5	91995-17-4	0.01	N.D.
14	Anthracene oil, anthracene-low	292-604-8	90640-82-7	0.01	N.D.

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Seq.	Test Item(s)	EC. No.	CAS No.	MDL (%)	Test Results <sup>▲</sup> (%)
15	Benzyl butyl phthalate(BBP)	201-622-7	85-68-7	0.005	N.D.
16	Di(2-ethyl(hexyl)phthalate)(DEHP)	204-211-0	117-81-7	0.005	N.D.
17	Bis(tributyltin)oxide(TBTO)**	200-268-0	56-35-9	0.005	N.D.
18	Boric acid*	233-139-2 / 234-343-4	10043-35-3 / 11113-50-1	0.01	N.D.
19	Chromic acid, Oligomers of chromic acid and dichromic acid, Dichromic acid	231-801-5 - 236-881-5	7738-94-5 - 13530-68-2	0.01	N.D.
20	Chromium trioxide*	215-607-8	1333-82-0	0.01	N.D.
21	Cobalt dichloride*	231-589-4	7646-79-9	0.01	N.D.
22	Cobalt(II) carbonate*	208-169-4	513-79-1	0.01	N.D.
23	Cobalt(II) diacetate*	200-755-8	71-48-7	0.01	N.D.
24	Cobalt(II) dinitrate*	233-402-1	10141-05-6	0.01	N.D.
25	Cobalt(II) sulphate*	233-334-2	10124-43-3	0.01	N.D.
26	Diarsenic pentaoxide*	215-116-9	1303-28-2	0.01	N.D.
27	Diarsenic trioxide*	215-481-4	1327-53-3	0.01	N.D.
28	Dibutyl Phthalate(DBP)	201-557-4	84-74-2	0.002	N.D.
29	Diisobutyl Phthalate(DIBP)	201-553-2	84-69-5	0.01	N.D.



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Seq.	Test Item(s)	EC. No.	CAS No.	MDL (%)	Test Results <sup>▲</sup> (%)
30	Disodium tetraborate, anhydrous*	215-540-4	1303-96-4/ 1330-43-4/ 12179-04-3	0.01	N.D.
31	Hexabromocyclododecane	247-148-4 and 221-695-9	25637-99-4 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)	0.002	N.D.
32	Lead chromate*	231-846-0	7758-97-6	0.01	N.D.
33	Lead chromate molybdate sulfate red (C.I. Pigment Red 104)*	235-759-9	12656-85-8	0.01	N.D.
34	Lead hydrogen arsenate*	232-064-2	7784-40-9	0.01	N.D.
35	Lead sulfochromate yellow (C.I. Pigment Yellow 34)*	215-693-7	1344-37-2	0.01	N.D.
36	Coal tar pitch, high temperature	266-028-2	65996-93-2	0.01	N.D.
37	Potassium chromate*	232-140-5	7789-00-6	0.01	N.D.
38	Potassium dichromate*	231-906-6	7778-50-9	0.01	N.D.
39	Sodium chromate*	231-889-5	7775-11-3	0.01	N.D.
40	Sodium dichromate*	234-190-3	7789-12-0/ 10588-01-9	0.01	N.D.
41	Tetraboron disodium heptaoxide, hydrate*	235-541-3	12267-73-1	0.01	N.D.
42	Trichloroethylene	201-167-4	79-01-6	0.01	N.D.
43	Triethyl arsenate*	427-700-2	15606-95-8	0.01	N.D.
44	Tris(2-chloroethyl)phosphate	204-118-5	115-96-8	0.01	N.D.

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Seq.	Test Item(s)	EC. No.	CAS No.	MDL (%)	Test Results <sup>△</sup> (%)
45	2-ethoxyethyl acetate	203-839-2	111-15-9	0.01	N.D.
46	Strontium chromate*	232-142-6	7789-06-2	0.01	N.D.
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4	0.01	N.D.
48	Hydrazine	206-114-9	7803-57-8 302-01-2	0.01	N.D.
49	1-methyl-2-pyrrolidone	212-828-1	872-50-4	0.01	N.D.
50	1,2,3-trichloropropane	202-486-1	96-18-4	0.01	N.D.
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters,C7-rich	276-158-1	71888-89-6	0.01	N.D.
52	Lead dipicrate*	229-335-2	6477-64-1	0.01	N.D.
53	Lead styphnate*	239-290-0	15245-44-0	0.01	N.D.
54	Lead diazide Lead azide *	236-542-1	13424-46-9	0.01	N.D.
55	Phenolphthalein	201-004-7	77-09-8	0.01	N.D.
56	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	202-918-9	101-14-4	0.01	N.D.
57	N,N-dimethylacetamide	204-826-4	127-19-5	0.01	N.D.
58	Trilead diarsenate*	222-979-5	3687-31-8	0.01	N.D.

\*\*\*\*\* To be continued \*\*\*\*\*



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Seq.	Test Item(s)	EC. No.	CAS No.	MDL (%)	Test Results <sup>▲</sup> (%)
59	Calcium arsenate*	231-904-5	7778-44-1	0.01	N.D.
60	Arsenic acid*	231-901-9	7778-39-4	0.01	N.D.
61	Bis(2-methoxyethyl) ether	203-924-4	111-96-6	0.01	N.D.
62	1,2-Dichloroethane	203-458-1	107-06-2	0.01	N.D.
63	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	205-426-2	140-66-9	0.01	N.D.
64	2-Methoxyaniline; o-Anisidine	201-963-1	90-04-0	0.01	N.D.
65	Bis(2-methoxyethyl) phthalate(DMEP)	204-212-6	117-82-8	0.01	N.D.
66	Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4	0.01	N.D.
67	Zr-RCF(Zirconia Aluminosilicate Refractory Ceramic Fibres)***	---	---	0.01	N.D.
68	Aluminosilicate Refractory Ceramic Fibres (RCF)***	---	---	0.01	N.D.
69	Pentazinc chromate octahydroxide*	256-418-0	49663-84-5	0.01	N.D.
70	Potassium hydroxyoctaoxodizincatedi-chromat e*	234-329-8	11103-86-9	0.01	N.D.
71	Dichromium tris(chromate)*	246-356-2	24613-89-6	0.01	N.D.
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2	0.01	N.D.
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4	0.01	N.D.

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Seq.	Test Item(s)	EC. No.	CAS No.	MDL (%)	Test Results <sup>▲</sup> (%)
74	Diboron trioxide*	215-125-8	1303-86-2	0.01	N.D.
75	Formamide	200-842-0	75-12-7	0.01	N.D.
76	Lead(II) bis(methanesulfonate)*	401-750-5	17570-76-2	0.01	N.D.
77	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	219-514-3	2451-62-9	0.01	N.D.
78	$\beta$ -TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	423-400-0	59653-74-6	0.01	N.D.
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8	0.01	N.D.
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1	0.01	N.D.
81	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)****	208-953-6	548-62-9	0.01	N.D.
82	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26) ****	219-943-6	2580-56-5	0.01	N.D.
83	$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)****	229-851-8	6786-83-0	0.01	N.D.
84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol****	209-218-2	561-41-1	0.01	N.D.

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- Remark 1** 1) In accordance with Regulation(EC) No. 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1), if both the following conditions are met:
- (a) the substance is present in those articles in quantities totalling over 1 tonne per producer or importer per year;
  - (b) the substance is present in those articles above a concentration of 0,1 % weight by weight (w/w).
- 2) From 28 October 2008, EU & EEA suppliers of articles which contain substances on the Candidate List in a concentration above 0.1% (w/w) must provide sufficient information, available to them, to their customers and on request to a consumer within 45 days of the receipt of this request. This information must ensure safe use of the article and, as a minimum, include the name of the substance.
- Remark 2** 1)\* Calculated concentration of cobalt dichloride, cobalt(II) sulphate, cobalt(II) dinitrate, cobalt(II) carbonate and cobalt(II) diacetate is based on the identified heavy metal and anion result. Calculated concentration of diarsenic pentaoxide, diarsenic trioxide, chromium trioxide, sodium dichromate, dehydrate, lead hydrogen arsenate, triethyl arsenate, lead chromate, sodium chromate, strontium chromate ,potassium chromate, ammonium dichromate, potassium dichromate, lead chromate molybdate sulfate red, lead sulfochromate yellow and acids generated from chromium trioxide and their oligomers, Lead dipicrate, Lead styphnate, Lead azide Lead diazide, Trilead diarsenate , Calcium arsenate , Arsenic acid , Potassium hydroxyoctaoxodizincatedi-chromate, Dichromium tris(chromate), Pentazinc chromate octahydroxide, Diboron trioxide, Lead(II) bis(methanesulfonate) are based on the identified heavy metal result, boric acid, disodium tetraborate, anhydrous and tetraboron disodium heptaoxide, hydrate are based on the identified result of boron and sodium result. The identities of above metal substances present in the article have to be further confirmed.
- 2)\*\* Concentration of bis(tributyltin)oxide, TBTO is reported as tributyltin, TBT. Further investigation is needed to have the exact amount of TBTO.
- 3)\*\*\* Calculated concentration of Zr-RCF(Zirconia Aluminosilicate Refractory Ceramic Fibres);  
Aluminosilicate Refractory Ceramic Fibres(RCF) is based on the identified heavy metal result and confirmation by microscope.
- 4)\*\*\*\* The substance does only fulfil the criteria of REACH Art. 57 (a) if it contains Michler's ketone (EC Number: 202-027-5) or Michler's base (EC Number: 202-959-2) in a concentration  $\geq 0.1\%$ (weight / weight).
- 5) N.D. = Not detected, less than method detection limit (MDL).
- 6) <sup>▲</sup>As specified by client, the sample was tested in mixture.

**Test Part Description:** Sprayers & pump

\*\*\*\*\* To be continued \*\*\*\*\*



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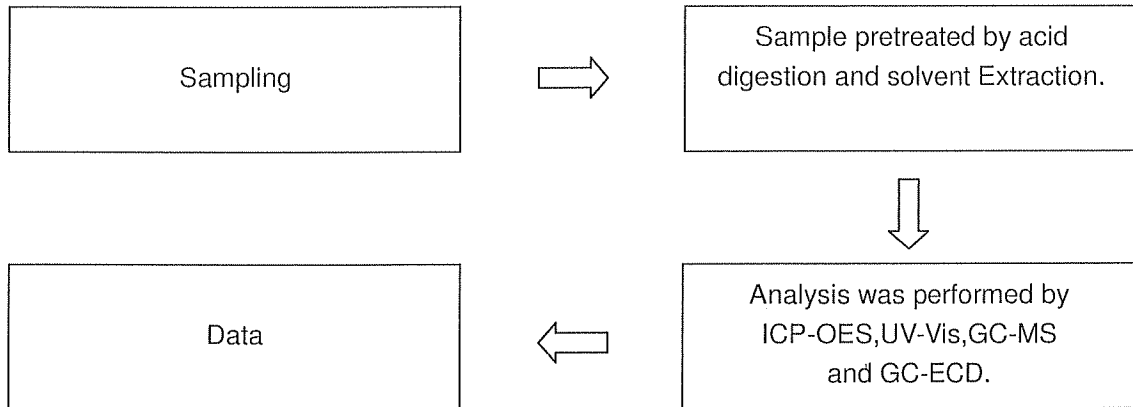
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## FLOW CHART



\*\*\*\*\* To be continued \*\*\*\*\*

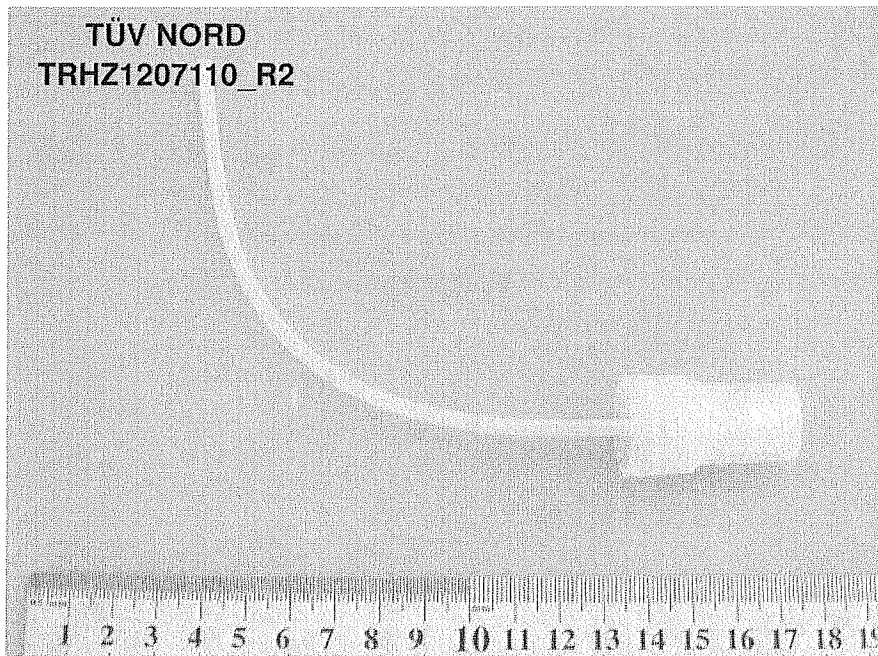
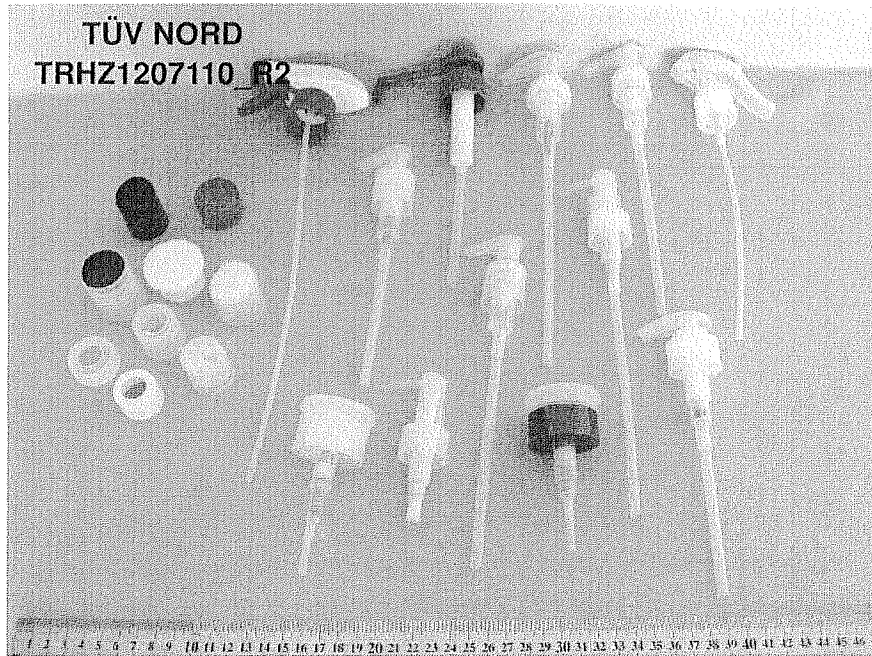
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## PRODUCT PHOTOS



\*\*\*\*\* To be continued \*\*\*\*\*

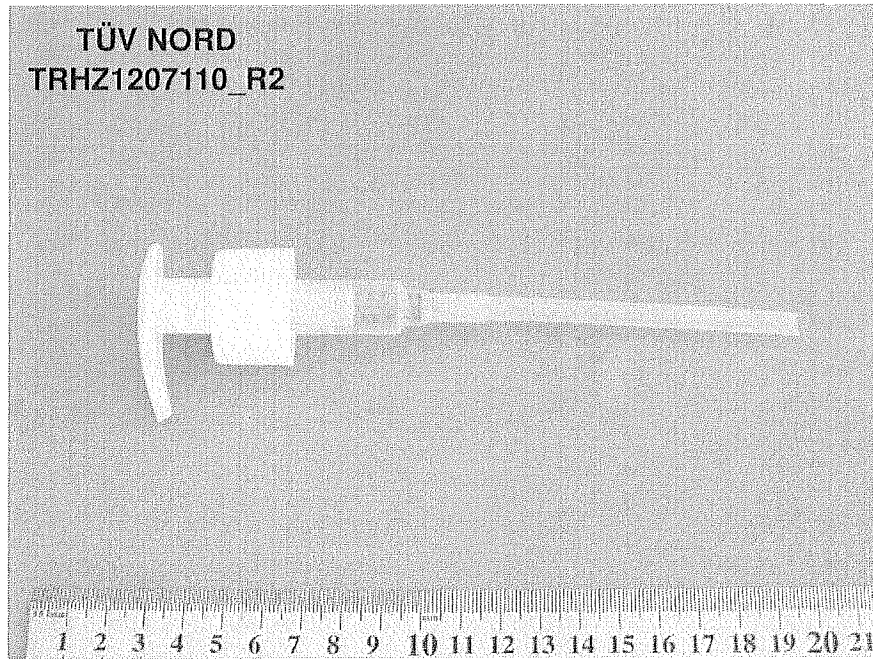
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## SAMPLE PHOTO



\*\*\*\*\* END OF REPORT \*\*\*\*\*