



NSF International

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TEST REPORT

Send To: 3L410

Mr. Colman Dungan
Precision Associates Inc.
3800 Washington Avenue North
Minneapolis, MN 55412

Facility: C0092441

Precision Associates Inc.
3800 Washington Avenue North
Minneapolis MN 55412
United States

Result PASS

Report Date 25-APR-2016

Customer Name Precision Associates Inc.
Tested To NSF/ANSI 61
Description 23761 | Black rubber plaques
Trade Designation 23761
Test Type Annual Collection
Job Number A-00197034
Project Number W0249031
Project Manager Cortney Scruggs

Thank you for having your product tested by NSF International.

Please contact your Project Manager if you have any questions or concerns pertaining to this report.

Report Authorization

Amanda Phelka - Director, Toxicology Services

Date 24-APR-2016



General Information

Standard: NSF/ANSI 61

DCC Number: IA16315

Lot Number: 64804A

Monitor Code: A

Physical Description of Sample: Black rubber plaques

Trade Designation/Model Number: 23761

Sample Id: **S-0001235582**
 Description: Sample exposed at 82C and pH 8
 Sampled Date: 03/31/2016
 Received Date: 03/04/2016

Normalization Information:

Date exposure completed:	31-MAR-2016	Calculated N1:	0.07	Field Exposure Time:	16 hours	Lab Exposure Time:	16.50 hours
Field Surface Area:	2 in2	Lab Surface Area:	13.4 in2	Calculated N2:	1.00	Calculated N4:	1.000
				Constant N2:	1	Misc. Factor:	1
Field Static Volume:	1 L	Lab Static Volume:	0.470 L				
				Calculated NFm:	1.00		

Compound Reference Key: TAC

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Chemistry Lab					
Polynuclear Aromatic Hydrocarbons by GCMS					
Acenaphthene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Acenaphthylene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Anthracene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Benzo(a)Anthracene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Benzo(a)Pyrene (PAH)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Benzo(b)Fluoranthene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Benzo(g,h,i)Perylene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Benzo(k)Fluoranthene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Chrysene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Dibenzo(a,h)Anthracene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Fluoranthene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Fluorene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Indeno(1,2,3,-c,d)Pyrene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Naphthalene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Phenanthrene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
Pyrene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.01)	ug/L
BASE/NEUTRAL/ACID EPA METHOD 625 Scan for Tentatively Identified Compound					
(Butoxyethoxy) ethanol	4	Complete	4	0.3	ug/L
Bisbutoxyethoxyethyl adipate	6	Complete	6	0.4	ug/L
Dihydrodimethylacridine	4	Complete	4	0.3	ug/L
O compd MW>191	4	Complete	4	0.3	ug/L
Scan Control Complete	TRUE				
Semivolatile Compounds, Base/Neutral/Acid Target 625, Data Workup					
Pyridine	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L



Sample Id: S-0001235582

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Chemistry Lab (Continued)					
Nitrosodimethylamine (N-)	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
N-Nitrosomethylethylamine	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
5-Methyl-2-hexanone (MIAK)	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
1-Methoxy-2-propanol acetate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2-Heptanone	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Cyclohexanone	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Nitrosodiethylamine (N-)	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Isobutylisobutyrate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Aniline	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Phenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Di(chloroethyl) ether	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2-Chlorophenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2,3-Benzofuran	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
1,3-Dichlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
1,4-Dichlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
3-Cyclohexene-1-carbonitrile	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2-Ethylhexanol	3	ND(2)	3	0.2	ug/L
Benzyl alcohol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
1,2-Dichlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
bis(2-Chloroisopropyl)ether	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2-Methylphenol (o-Cresol)	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
N-Methylaniline	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Acetophenone	3	ND(2)	3	0.2	ug/L
N-Nitrosodi-n-propylamine	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
N-Nitrosopyrrolidine	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
3- and 4-Methylphenol (m&p-Cresol)	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Hexachloroethane	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2-Phenyl-2-propanol	5	ND(2)	5	0.3	ug/L
N-Nitrosomorpholine	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Nitrobenzene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2,6-Dimethylphenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
N-Vinylpyrrolidinone	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
N-Nitrosopiperidine	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Triethylphosphate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Isophorone	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2-Nitrophenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2,4-Dimethylphenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
bis(2-Chloroethoxy)methane	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2,4-Dichlorophenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Trichlorobenzene (1,2,4-)	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Naphthalene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
4-Chloroaniline	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
1,1,1,3,3,-Tetramethyl-2-thiourea	ND(4)	ND(4)	ND(4)	ND(0.3)	ug/L
Hexachlorobutadiene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L



Sample Id: S-0001235582

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Chemistry Lab (Continued)					
Benzothiazole	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
N-Nitrosodi-n-butylamine	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
4-Chloro-3-methylphenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
p-tert-Butylphenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2-Ethylhexyl glycidyl ether	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2,6-Di-t-butyl-4-methylphenol(BHT)	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Methylnaphthalene, 2-	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Cyclododecane	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2,4,5-Trichlorophenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2,4,6-trichlorophenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
1(3H)-Isobenzofuranone	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2-Chloronaphthalene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2-Nitroaniline	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
1,1'-(1,3-Phenylene)bis ethanone	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2,6-Di-tert-butylphenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Dimethylphthalate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
1,1'-(1,4-Phenylene)bis ethanone	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Acenaphthylene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Benzenedimethanol, a,a,a',a'-tetramethyl-1,3-	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2,6-Dinitrotoluene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2,4-Dinitrotoluene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Benzenedimethanol, a,a,a',a'-Tetramethyl-1,4-	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
2,4-Di-tert-butylphenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Dimethyl terephthalate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Acenaphthene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Dibenzofuran	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Ethyl-4-ethoxybenzoate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
4-Nitrophenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Cyclododecanone	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Diethyl Phthalate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
p-tert-Octylphenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Fluorene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
4-Chlorophenylphenylether	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
3-Nitroaniline	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
4-Nitroaniline	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Nitrosodiphenylamine (N-)	2	ND(2)	2	0.2	ug/L
Azobenzene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
4-Bromophenylphenylether	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Hexachlorobenzene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Pentachlorophenol	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Phenanthrene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Anthracene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Diisobutyl phthalate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Dibutyl phthalate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L



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Testing Parameter	Sample	Control	Result	Normalized Result	Units
Chemistry Lab (Continued)					
Diphenyl sulfone	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Hydroxymethylphenylbenzotriazole	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Fluoranthene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Pyrene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Butyl benzyl phthalate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Di(2-ethylhexyl)adipate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
3,3-Dichlorobenzidine	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Benzo(a)anthracene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Di(2-ethylhexyl)phthalate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Chrysene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Di-n-octylphthalate	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Benzo(b)fluoranthene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Benzo(k)fluoranthene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Benzo(a)Pyrene (PAH)	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Dibenzo(a,h)anthracene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Indeno(1,2,3-cd)pyrene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Benzo(g,h,i)perylene	ND(2)	ND(2)	ND(2)	ND(0.1)	ug/L
Volatile Organic Compounds (Ref: EPA 524.2)					
Dichlorodifluoromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Chloromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Vinyl Chloride	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Bromomethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Chloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Trichlorofluoromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Trichlorotrifluoroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Methylene Chloride	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,1-Dichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
trans-1,2-Dichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,1-Dichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
2,2-Dichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
cis-1,2-Dichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Chloroform	0.5	ND(0.5)	0.5	0.03	ug/L
Bromochloromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,1,1-Trichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,1-Dichloropropene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Carbon Tetrachloride	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,2-Dichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Trichloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,2-Dichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Bromodichloromethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Dibromomethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
cis-1,3-Dichloropropene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
trans-1,3-Dichloropropene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,1,2-Trichloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L



Sample Id: S-0001235582

Testing Parameter	Sample	Control	Result	Normalized Result	Units
Chemistry Lab (Continued)					
1,3-Dichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Tetrachloroethylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Chlorodibromomethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Chlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,1,1,2-Tetrachloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Bromoform	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,1,1,2,2-Tetrachloroethane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,2,3-Trichloropropane	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,3-Dichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,4-Dichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,2-Dichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Carbon Disulfide	ND(1)	ND(1)	ND(1)	ND(0.07)	ug/L
Methyl-tert-Butyl Ether (MTBE)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
tert-Butyl ethyl ether	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Methyl Ethyl Ketone	ND(5)	ND(5)	ND(5)	ND(0.3)	ug/L
Methyl Isobutyl Ketone	ND(5)	ND(5)	ND(5)	ND(0.3)	ug/L
Toluene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Ethyl Benzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
m+p-Xylenes	ND(1)	ND(1)	ND(1)	ND(0.07)	ug/L
o-Xylene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Styrene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Isopropylbenzene (Cumene)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
n-Propylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Bromobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
2-Chlorotoluene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
4-Chlorotoluene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,3,5-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
tert-Butylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,2,4-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
sec-Butylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
p-Isopropyltoluene (Cymene)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,2,3-Trimethylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
n-Butylbenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,2,4-Trichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Hexachlorobutadiene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
1,2,3-Trichlorobenzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Naphthalene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Benzene	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L
Total Trihalomethanes	0.5	ND(0.5)	0.5	0.03	ug/L
Total Xylenes	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.03)	ug/L



Testing Laboratories:

	<u>Id</u>	<u>Address</u>
All work performed at: →	NSF_AA	NSF International 789 N. Dixboro Road Ann Arbor MI 48105

References to Testing Procedures:

<u>NSF Reference</u>	<u>Parameter / Test Description</u>
C0314	Polynuclear Aromatic Hydrocarbons by GCMS
C2023	BASE/NEUTRAL/ACID EPA METHOD 625 Scan for Tentatively Identified Compounds (TICs)
C2024	Semivolatile Compounds, Base/Neutral/Acid Target 625, Data Workup
C4662	Volatile Organic Compounds (Ref: EPA 524.2)

Test descriptions preceded by an asterisk "*" indicate that testing has been performed per NSF International requirements but is not within its scope of accreditation.