

GADSL Risk assessment

Report No.:

US/2017/70147

Date:

2017/07/28

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EGENE OPTOELECTRONIC MATERIALS CO., LTD.

NO.59, LN.226, LUZHU RD., TOUFEN CITY, MIAOLI COUNTY 351, TAIWAN

The following sample(s) was/were submitted and identified by/on behalf of applicant as:

Sample Name:

SUPERNOL(R)

Applicant:

EGENE OPTOELECTRONIC MATERIALS CO., LTD.

Style/Item No:

S101/S101 PLUS SERIES

Manufacturer:

EGENE OPTOELECTRONIC MATERIALS CO., LTD.

Country of Origin:

Date of Sample Received:

2017/07/10

Date of Testing:

2017/07/10 to 2017/07/28

According to the customer requests/demands/Criteria, the sample (including of

parts and raw materials) is followed and evaluated through the restricted

substances existence testing/risk assessment

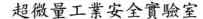
The Result:

-Please refer to next page(s)-

Signed for and on behalf of

SGS Taiwan Ltd.

River Lee Manager



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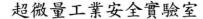
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The Result:

Substance	CAS-No.	Threshold (0,1% if not Stated otherwise)	<u>Unit</u>	<u>RL</u>	001
Acetaldehyde	75-07-0	1000	mg/kg	100	NA
Acetamide, N-methyl-	79-16-3	1000	mg/kg	100	NA
Acetonitrile	75-05-8	1000	mg/kg	100	NA
Acrylamide	79-06-1	1000	mg/kg	100	Na
Acrylonitrile	107-13-1	1000	mg/kg	100	NA
Amines, which can form carcinogenic Nitrosamines, selected	-	1000	mg/kg	100	NA
4-Aminobiphenyl and its salts, all members	-	100	mg/kg	100	NA
Ammonium Perchlorate	7790-98-9	1000	mg/kg	100	NA
Aniline and its salts, all members	-	1000	mg/kg	100	NA
9,10-Anthracenedione, 1-[(5,7-dichloro-1,9-dihydro-2-methyl-9 -oxopyrazolo[5,1-b]quinazolin-3-yl)azo] - (note 7)	74336-60-0	1000	mg/kg	100	NTR
Antimonytrioxide (Diantimonytrioxide)	1309-64-4	1000	mg/kg	100	NA
Aromatic amines, selected	-	1000	mg/kg	100	NA
Arsenic and its compounds, all members (note 8)	-	500	mg/kg	2	NA
Asbestos Fibres, all members (note 9)	-	-	-	-	Negative
Asbestos Minerals, all members (note 9)	-	Ξ.	-	-	Negative
Chrysotile (note 9)(note 23)	132207-32-0	-	-	7 <u>2</u> 2	Negative
Azodyes that can form carcinogenic amines, selected	-	-	-	-	NA
Barium compounds (organic or water soluble), selected	-	10000	mg/kg	2	NA
Benzidine and its salts, all members (note 10)		100	mg/kg	2	NA
Benzene	71-43-2	100	mg/kg	100	ND
Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (note 7)	68921-45-9	1000	mg/kg	100	NTR
1,4-Benzenediamine, N,N' -mixed Phenyl and tolyl derives (note 7)	68953-84-4	1000	mg/kg	100	NTR
1,4 Benzenediol (Hydroquinone)	123-31-9	1000	mg/kg	100	NA



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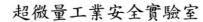
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2-Benzothiazolesulphenamide, N, N-dicyclohexyl- (note 11)	4979-32-2	1000	mg/kg	100	NA
2-(2H-benzotriazol-2-yl)-4,6-ditertpenty lphenol (UV-328) (note 22)	25973-55-1	1000	mg/kg	100	NA
Beryllium and its compounds, all members	-	1000	mg/kg	2	ND
Biocidal coatings / biocidal additives, selected (note 9)	-	1000	mg/kg	100	NA
Bis(chloromethyl) ether (BCME) (note 9)	542-88-1	1000	mg/kg	100	NA
Boric acid/Orthiboric acid(note 21)	11113-50-1 10043-35-3	1000	mg/kg	100	NA
Butadiene, 1,3 -	106-99-0	1000	mg/kg	100	NA
Cadmium and its compounds, all members (note 12)	-	100	mg/kg	2	ND
Chlorinated hydrocarbons, selected	-	1000	mg/kg	100	NA
Chlorinated or brominated Dibenzo-p-dioxins or Dibenzofurans, all members (note 13)	-	10	µg/kg	10	NA
Chlorinated Paraffins, Short & Medium Chain Length (SCCP, MCCP), all members: Note that the use of specific CAS numbers for these substances differs throughout the world. Example CAS numbers are provided below; however, other CAS numbers may be used that are not specific to chain length. Therefore, please consult your MSDS and supplier to determine product-specific chain length.	-	10000	mg/kg	100	NA
Chromium(VI)-salts, all members (note 14)	-	1000	mg/kg	2	ND
Cobalt and its compounds, all members	- A	1000	mg/kg	2	ND
Colophony (Rosin), selected	-	1000	mg/kg	2	NA
Copper (metallic) (note 25)	7440-50-8	1000	mg/kg	2	ND
Cyclododecane, hexabromo- (HBCD)	25637-99-4	1000	mg/kg	100	NA
Diamino-diphenylmethane (4,4'-Diaminodiphenylmethane)	101-77-9	1000	mg/kg	100	NA

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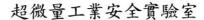
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Dimethylformamide (N,N-Dimethylformamide)	68-12-2	1000	mg/kg	100	NA
Diorganotin compounds, selected	y-	1000	mg/kg	100	NA
Disodiumtetraborates, selected	-	1000	mg/kg	100	NA
Dodecachloropentacyclo 1, 3, 4-Metheno-1H-cyclobuta(cd)pentalene, Mirex (note 9)	2385-85-5	1000	mg/kg	100	NA
Epichlorohydrin (1-chloro-2,3-epoxypropane)	106-89-8	1000	mg/kg	100	NA
Ethanol, 2-(2-methoxyethoxy)- (note 7)	111-77-3	1000	mg/kg	100	NTR
Ethyl-/ Methyl-Glycols and their Acetates	-	1000	mg/kg	100	NA
Ethylenethiourea/ Imidazolidine-2-thione	96-45-7	1000	mg/kg	100	NA
Fluorotelomers, selected	Some substances may not have CAS#s	1000	mg/kg	100	NA
Formaldehyde (note 15)	50-00-0	1000	mg/kg	100	NA
Hexachlorobenzene	118-74-1	10	µg/kg	-	NA
Hexachloro-1,3-butadiene (HCBD) (note 9)	87-68-3	1000	mg/kg	100	NA
Hexachlorocyclohexane, gamma isomer, Lindane	58-89-9	1000	mg/kg	100	NA
Hexanedioic acid, bis(2-ethylhexyl) ester (note 7)	103-23-1	1000	mg/kg	100	NTR
Hydrazine	302-01-2	1000	mg/kg	500	NA
Hydrobromofluorocarbons (HBFC's), all members	-	1000	mg/kg	100	ND
Hydrochlorofluorocarbons (HCFC's), all members	-	1000	mg/kg	100	ND
Hydrofluorocarbons (HFC's), all members	-	1000	mg/kg	100	ND
Lead and its compounds, all members (note 14)	-	1000	mg/kg	2	ND
Mercury and its compounds, all members (note 14)	-	1000	mg/kg	2	ND
Methanol	67-56-1	1000	mg/kg	100	ND
Mineral fibres (Natural or Synthetic) except Continuous Filament Fibres, all members	-	. -	-	-	Negative
Monomethyldibromodiphenylmethane	99688-47-8	1000	mg/kg	100	NA

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Monomethyldichlorodiphenylmethane	81161-70-8	1000	mg/kg	100	NA
Monomethyltetrachlorodiphenylmethan e	76253-60-6	1000	mg/kg	100	NA
2-Naphthalenol, 1-[(4-methyl-2-nitrophenyl)azo]-(note 7)	2425-85-6	1000	mg/kg	100	NTR
2-Naphthylamine and its salts, all members	-	1000	mg/kg	100	NA
Nickel and its compounds, all members	-	1000	mg/kg	2	ND
Nitrites, all members	-	1000	mg/kg	100	NA
4-Nitrobiphenyl and its salts	-	100	mg/kg	100	NA
Nitrocellulose	9004-70-0	1000	-	-	NA
N-Nitrosamines, selected	-	1000	mg/kg	100	NA
Nonylphenol, selected	25154-52-3	1000	mg/kg	100	NA
Nonylphenol ethoxylates, all members	-	1000	mg/kg	100	NA
7-Oxa-3,20-diazadispiro[5.1.11.2]-hen eicosan-21-one, 2,2,4,4-tetramethyl-	64338-16-5	1000	mg/kg	100	NA
Ozone depleting halogenated Hydrocarbons and Carbons, all members	-	1000	mg/kg	100	NA
Pentachlorobenzene (note 9)	608-93-5	1000	mg/kg	100	NA
Pentachlorophenol (PCP) and its salts, all members	-	1000	mg/kg	100	NA
Perchlorates, all members	-	1000	mg/kg	100	NA
Perfluorooctane sulfonates C8F17SO2X (X = OH, Metal salt, halide, amide, and other derivatives including polymers), all members	-	1000	mg/kg	100	NA
PFOA and its salts, Perfluorooctanoic acids C8F15O2X (X = H, NH4, and Metal salts), all members (note 16)	-	1000	mg/kg	100	NA
Phenol	108-95-2	1000	mg/kg	100	ND
Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-di methlethyl)-	3846-71-7	1000	mg/kg	100	NA
Phenol, 2-(5-chloro-2H-benzotriazol-2-yl)-4,6-bi s(1,1'-dimethylethyl)- (note 11)	3864-99-1	1000	mg/kg	100	NA



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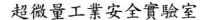
Phenol, 2-(5-chloro-2H-benzotriazol-2-yl)-4,6-bi s(1,1'-dimethylethyl)- (UV 327) (note 11)	3864-99-1	1000	mg/kg	100	NA
Phenol, 2,4,6-tris(1,1-dimethylethyl)-	732-26-3	1000	mg/kg	100	NA
Phenylendiamines and its salts, Selected	-	1000	mg/kg	100	NA
Phosphoric acid, tris(2-methylphenyl) ester (note 21)	78-30-8	1000	mg/kg	100	NA
Phthalates, selected	-	1000	mg/kg	100	NA
Polyamine Curing Agents, selected	-	1000	mg/kg	100	NA
Polybrominated biphenyls (PBB), all members	-	1000	mg/kg	100	NA
Polybrominated diphenyl ethers (PBDE), all members	-	1000	mg/kg	100	NA
Polybrominated Terphenyls (PBT), all members	-	1000	mg/kg	100	NA
Polychlorinated Biphenyls (PCB), all members		50	mg/kg	5	NA
Polychlorinated Naphthalenes, all members	-	1000	mg/kg	100	NA
Polychlorinated Terphenyls (PCT), all members	-	10	mg/kg	5	NA
Polycyclic aromatic hydrocarbons (PAH; PCAH) in extender oils and extender oils in tyres, selected (note 17)	-	1000	mg/kg	-	NA
Polycyclic aromatic hydrocarbons (PAH; PCAH) in polymers, selected (note 18)	-	1000	mg/kg	100	NA
1,3-Propanesultone (note 22)	1120-71-4	1000	mg/kg	100	NA
2-Propanone, reaction products with diphenylamine (PREPOD)	68412-48-6	1000	mg/kg	100	NA
Pyrrolidones, selected		1000	mg/kg	100	NA
Radioactive substances (including scrap metal contaminants), all members (note 19)	*	1000	mg/kg		NA
Selenium and its compounds, all members	-	1000	mg/kg	2	ND
Silica, Crystalline (note 9)	14808-60-7	1000	mg/kg	2	NA
Sodium azide	26628-22-8	1000	mg/kg	2	NA

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 SGS Taiwan Ltd.

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Styrene (Vinyl benzene)	100-42-5	1000	mg/kg	100	ND
Styrene oxide (Epoxy styrene)	96-09-3	1000	mg/kg	100	NA
Sulfur Hexafluoride	2551-62-4	1000	mg/kg	100	NA
Tetrabromobisphenol A (TBBPA)	79-94-7	1000	mg/kg	100	NA
Tetrachlorobenzene, all members (note 9)	-	1000	mg/kg	100	NA
Methane, tetrafluoro-	75-73-0	1000	mg/kg	100	NA
Thallium	-	1000	mg/kg	100	ND
Thioperoxydicarbonic diamide ([(H2N)C(S)]2S2), tetramethyl-	137-26-8	1000	mg/kg	100	NA
Toluene	108-88-3	1000	mg/kg	100	NA
o-Toluidine generating substances, selected	-	15000	mg/kg	100	NA
Trichlorophenol and its salts, all members	-	1000	mg/kg	100	NA
Trichloropropane (1,2,3 - Trichloropropane)	96-18-4	1000	mg/kg	100	NA
Trimethylphosphate	512-56-1	1000	mg/kg	100	NA
Triorganotin compounds all members	-	1000	mg/kg	100	NA
Triphenylphosphate	115-86-6	1000	mg/kg	100	NA
Tris(1,3-dichloro-2-propyl)phosphate	13674-87-8	1000	mg/kg	100	NA
Tris-(1-aziridinyl) phosphine oxide	545-55-1	1000	mg/kg	100	NA
Tris(2,3-dibromopropyl)phosphate [TRIS]	126-72-7	1000	mg/kg	100	NA
Tris(2-chloroethyl)phosphate (note 21)	115-96-8	1000	mg/kg	100	NA
Trixylyl phosphate (note 21)	25155-23-1	1000	mg/kg	100	NA
Vinyl chloride (note 20)	75-01-4	5	mg/kg	-	NA

Notes:

- (1) 1mg/kg=1ppm=0.0001%
- (2) $1\mu g/kg = 1ppb = 0.001mg/kg = 0,001ppm$
- (3) RL = Report Limit
- (4) ND = Not Detected (<RL)
- (5) NTR = No testing required
- (6) NA = Not applicable for respective material type. (Organic test will not conduct for untreated glass, ceramic and metal).
- (7) 0.1% Report any intentionally added content. No testing required.
- (8) 0.01%, unless present in metals and alloys, then the declaration limit is 0.05%
- (9) Any intentionally added content
- (10) 0.01%, see details for Canada Specific
- (11) Any intentionally added content. Must be reported.



超微量工業安全實驗室

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- (12) 0.01% Report any intentionally added content. Must be reported.
- (13) Content above 10 ppb
- (14) 0.1% Report any intentionally added content. Must be reported.
- (15) Any intentionally added content of formaldehyde; Formaldehyde in any material. Which is may be emitted under reasonable and foreseeable conditions, must be qualitatively indicated; Impurities of formaldehyde above 0.1% has to be declared.
- (16) 0.1% by mass in components made from fluoropolymers.
- (17) Extender oils shall not be placed on the market and used for the production of tyres or parts of tyres or parts of tyres, if they contain: more than 1 mg/kg BaP, or more than 10 mg/kg of the sum of all listed PAHs. These limits are regarded as kept, if the polycyclic aromatics (PCA) extract is less than 3% by mass, as measured by the Institute of Petroleum standard IP346: 1998 1. Furthermore, the tyres and treads for retreading manufactured after 1 January 2010 may not be placed on the market if they contain extender oils exceeding the limits indicated in paragraph 1. These limits are regarded as kept, if the vulcanised rubber compounds do not exceed the limit of 0.35% Bay protons as measured and calculated by ISO 21461.
- (18) 20 ppm for Benzo(a)pyrene and 200 ppm for the sum of 8 PAH according to GADSL Reference list.
- (19) Above Background radiation
- (20) Threshold 5ppm vinyl chloride monomer in materials.
- (21) REACH Annex XIV
- (22) REACH Candidate list
- (23) REACH Annex XVII
- (24)In "GMW3059", all GADSL that are present in the component or product must be declared when the permitted limits are exceeded.
- (25) The GADSL reference list is based upon the version of 2016.

-END-

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Sample Photo

