

## Environmental Compliance Declarations to NVE Customers

NVE Corporation (NVE) provides high-performance spintronic products including sensors and couplers used to acquire and transmit data.

NVE products meet environmental regulations including: EU Directive 2011/65/EU RoHS 2, amending Annex II 2015/863/EU RoHS 3, China RoHS 2, EU 1907/2006 REACH, EU 2019/1021 Persistent Organic Pollutants (POP) and 2004/259/EC, California Proposition 65 and IEC Halogen-Free.

Notwithstanding any information provided by NVE on its Website or in this or other communications concerning the substance content of its products (articles), this document represents our knowledge and belief as of the date that it is provided.

NVE has taken reasonable steps to provide representative and accurate information, but may not have conducted destructive testing or chemical analysis on incoming materials. Certain material or CAS information may not be available as it may be considered proprietary to our subcontractors. This Environmental Compliance Certificate does not constitute a warranty or otherwise amend or supplement NVE’s Standard Terms and Conditions of Sale, which governs all warranty and any other product sale terms.

### RoHS Compliance Declaration

NVE certifies that to the best of our knowledge, products designated by NVE (as shown by an “E” in the product part number suffix or “e” after NVE (NVEe) on small parts with lot numbers greater than 0538xx), conform to the requirements of RoHS directives 2011/65/EU RoHS 2, Amending Annex II 2015/863/EU RoHS 3 and China RoHS 2 **with no exemptions**<sup>3</sup>. No lead (Pb) has been intentionally added to the product or any metallic coatings. These products are designed to meet the higher temperature reflow required for lead-free processes.

NVE also certifies that to the best of our knowledge, shipping / packing materials, accessories and other items delivered with the NVE products conform to the requirements of the above EU RoHS and China RoHS 2 Directives.

The following table lists the restricted materials and their respective allowable limits:

Restricted Substance	Maximum Limit (ppm) <sup>1</sup>
Cadmium (Cd) and its compounds	100 (0.01 weight %)
Lead (Pb) and its compounds	1000 <sup>2</sup> (0.01 weight %)
Mercury (Hg) and its compounds	1000 (0.01 weight %)
Hexavalent Chromium (Cr <sup>+6</sup> ) and its compounds	1000 (0.01 weight %)
Poly Brominated Biphenyls (PBB)	1000 (0.01 weight %)
Poly Brominated Diphenyl Ethers (PBDE)	1000 (0.01 weight %)
Bis(2-ethylhexyl) phthalate (DEHP) – RoHS 3 Addition	1000 (0.01 weight %)
Butyl benzyl phthalate (BBP) – RoHS 3 Addition	1000 (0.01 weight %)
Dibutyl phthalate (DBP) – RoHS 3 Addition	1000 (0.01 weight %)
Diisobutyl phthalate (DIBP) – RoHS 3 Addition	1000 (0.01 weight %)

Notes:

1. Maximum limit does not apply to applications covered by RoHS exemptions.
2. **“RoHS 5” non-“E”** parts - these standard products may be able to use the exemption 7.b in the appropriate environment: “Lead in solders for servers, storage and storage, storage array systems, network infrastructure equipment for switching, signaling transmission as well as network management for telecommunications.”
3. RoHS compliant parts meet the RoHS requirements with no exemptions.

### RoHS-5 Compliance Declaration

NVE certifies that to the best of our knowledge, NVE’s standard (**non-“E”**) integrated circuit component products in production, **which are not specifically identified as RoHS-compliant, contain Pb (Lead)** on the external leads solder-plate. But to the best of our knowledge at the time of issuance of this form, the remaining five restricted materials (Cd, Hg, Cr(VI), PBB and PBDE) are not deliberately introduced during the manufacture or assembly processes. These products conform to the remaining requirements of the RoHS Directives 2015/863/EU and China 2 RoHS.

**EU REACH Statement**

NVE certifies that to the best of our knowledge, NVE products meet EU REACH regulations EU 1907/2006 REACH and Annex XVII REACH.

Under REACH regulations – Article 7, NVE is considered a provider of “articles.” All of our products are assemblies/components, not raw materials. None of our products intentionally releases substances to the environment. None of our materials of construction are substances of very high concern (SVHC) and NVE has no Notification obligations under Article 33, as none of these SVHCs are present in our Products, or are present below the 0.1% wt./wt. concentration limit. The sum of each unique construction material in our articles imported into the E.U. is less than one ton per year. Given those conditions, our current products are exempt from REACH pre-registration and later registration activities. NVE has reviewed the Candidate List of SVHCs published in accordance with Article 59(10) of the REACH Regulation (see below).

**SVHC’s list** (includes Candidate List (209) as of June 25, 2020):

Substance name	EC(CAS No.)	CAS #	SVHC Pub. Date
Dibutylbis(pentane-2,4-dionato-O,O')tin	245-152-0	22673-19-4	25/06/2020
Butyl 4-hydroxybenzoate	202-318-7	94-26-8	25/06/2020
2-methylimidazole	211-765-7	693-98-1	25/06/2020
1-vinylimidazole	214-012-0	1072-63-5	25/06/2020
Diisohexyl phthalate	276-090-2	71850-09-4	16/01/2020
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	404-360-3	119313-12-1	16/01/2020
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	400-600-6	71868-10-5	16/01/2020
Perfluorobutane sulfonic acid (PFBS) and its salts	-	-	16/01/2020
2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides	-	-	16/07/2019
2-methoxyethyl acetate	203-772-9	110-49-6	16/07/2019
4-tert-butylphenol	202-679-0	98-54-4	16/07/2019
Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	-	16/07/2019
2,2-bis(4'-hydroxyphenyl)-4-methylpentane	401-720-1	6807-17-6	15/01/2019
Benzo[k]fluoranthene	205-916-6	207-08-9	15/01/2019
Fluoranthene	205-912-4	206-44-0	15/01/2019
Phenanthrene	201-581-5	85-01-8	15/01/2019
Pyrene	204-927-3	129-00-0	15/01/2019
1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one	239-139-9	15087-24-8	15/01/2019
Benzene-1,2,4-tricarboxylic acid 1,2 anhydride trimellitic anhydride; TMA	209-008-0	552-30-7	27/06/2018
Benzo[ghi]perylene	205-883-8	191-24-2	27/06/2018
Decamethylcyclopentasiloxane D5	208-764-9	541-02-6	27/06/2018
Dicyclohexyl phthalate DCHP	201-545-9	84-61-7	27/06/2018
Disodium octaborate	234-541-0	12008-41-2	27/06/2018
Dodecamethylcyclohexasiloxane D6	208-762-8	540-97-6	27/06/2018

Substance name	EC(CAS No.)	CAS #	SVHC Pub. Date
Ethylenediamine EDA	203-468-6	107-15-3	27/06/2018
Lead	231-100-4	7439-92-1	27/06/2018
Octamethylcyclotetrasiloxane D4	209-136-7	556-67-2	27/06/2018
Terphenyl, hydrogenated	262-967-7	61788-32-7	27/06/2018
1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.1.6,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus" <sup>TM</sup> ) covering any of its individual anti- and syn-isomers or any combination thereof	236-948-9	13560-89-9 135821-74-8 135821-03-3	01/15/2018
Benz[a]anthracene	200-280-6	56-55-3, 1718-53-2	01/15/2018
Cadmium carbonate	208-168-9	513-78-0	01/15/2018
Cadmium hydroxide	244-168-5	21041-95-2	01/15/2018
Cadmium nitrate	233-710-6	10022-68-1, 10325-94-7	01/15/2018
Chrysene	205-923-4	218-01-9, 1719-03-5	01/15/2018
Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) with $\geq 0.1\%$ w/w 4-heptylphenol, branched and linear (4-HPbl)	-	-	01/15/2018
Perfluorohexane-1-sulphonic acid and its salts PFHxS	-	-	07/07/2017
<u>4,4'-isopropylidenediphenol</u> Bisphenol A; BPA	201-245-8	80-05-7	12/01/2017
<u>4-heptylphenol, branched and linear</u> substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof	-	-	12/01/2017
<u>Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts</u> <u>Nonadecafluorodecanoic acid</u> EC no.: 206-400-3   CAS no.: 335-76-2 <u>Ammonium nonadecafluorodecanoate</u> EC no.: 221-470-5   CAS no.: 3108-42-7 <u>Decanoic acid, nonadecafluoro-, sodium salt</u> EC no.: -   CAS no.: 3830-45-3	-	-	12/01/2017
<u>p-(1,1-dimethylpropyl)phenol</u>	201-280-9	80-46-6	12/01/2017
Benzo [def] chrysene (Benzo[a]pyrene)	200-028-5	50-32-8	2016/06/20
1,3-propanesultone	214-317-9	1120-71-4	2015/12/17
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	223-383-8	3864-99-1	2015/12/17
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	253-037-1	36437-37-3	2015/12/17
Nitrobenzene	202-716-0	98-95-3	2015/12/17
Perfluorononan-1-oic-acid and its sodium and ammonium salts	206-801-3	375-95-1 21049-39-8 4149-60-4	2015/12/17
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate (EC No. 201-559-5)	271-094-0 272-013-1	68515-51-5 68648-93-1	2015/06/15
5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof]	-	-	2015/06/15

Substance name	EC(CAS No.)	CAS #	SVHC Pub. Date
Bis(2-ethylhexyl) phthalate (DEHP)	204-211-0	117-81-7	2014/12/17; 10/28/2008
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7	12/17/2014
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1	12/17/2014
reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-	-	12/17/2014
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1	12/17/2014
Cadmium fluoride	232-222-0	7790-79-6	12/17/2014
Cadmium sulphate	233-331-6	10124-36-4,31119-53-6	12/17/2014
Cadmium chloride	233-296-7	10108-64-2	2014/06/16
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4	2014/06/16
Sodium peroxometaborate	231-556-4	7632-04-4	2014/06/16
Sodium perborate; perboric acid, sodium salt	2390172-9; 234-390-0		2014/06/16
Cadmium sulphide	215-147-8	1306-23-6	2013/12/16
Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	209-358-4	573-58-0	2013/12/16
Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	217-710-3	1937-37-7	2013/12/16
Dihexyl phthalate	201-559-5	84-75-3	2013/12/16
Imidazolidine-2-thione (2-imidazoline-2-thiol)	202-506-9	96-45-7	2013/12/16
Lead di(acetate)	206-104-4	301-04-2	2013/12/16
Trixylyl phosphate	246-677-8	25155-23-1	2013/12/16
Cadmium	231-152-8	7440-43-9	2013/06/20
Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1	2013/06/20
Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1	2013/06/20
Dipentyl phthalate (DPP)	205-017-9	131-18-0	2013/06/20
4-Nonylphenol, branched and linear, ethoxylated [ <i>substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof</i> ]			2013/06/20
Cadmium oxide	215-146-2	1306-19-0	2013/06/20
Pyrochlore, antimony lead yellow	232-382-1	8012-00-8	2012/12/19
6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8	2012/12/19
Henicosfluoroundecanoic acid	218-165-4	2058-94-8	2012/12/19
Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [ <i>The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry</i> ]	247-094-1, 243-072-0, 256-356-4, 260-566-1	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	2012/12/19
Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3] [ <i>The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry</i> ]	201-604-9, 236-086-3, 238-009-9	85-42-7, 13149-00-3, 14166-21-3	2012/12/19
Dibutyltin dichloride (DBTC)	211-670-0	683-18-1	2012/12/19
Lead bis(tetrafluoroborate)	237-486-0	13814-96-5	2012/12/19

Substance name	EC(CAS No.)	CAS #	SVHC Pub. Date
Lead dinitrate	233-245-9	10099-74-8	2012/12/19
Silicic acid, lead salt	234-363-3	11120-22-2	2012/12/19
4-Aminoazobenzene	200-453-6	60-09-3	2012/12/19
Lead titanium zirconium oxide	235-727-4	12626-81-2	2012/12/19
Lead monoxide (lead oxide)	215-267-0	1317-36-8	2012/12/19
o-Toluidine	202-429-0	95-53-4	2012/12/19
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2	2012/12/19
Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008]	272-271-5	68784-75-8	2012/12/19
Trilead bis(carbonate)dihydroxide	215-290-6	1319-46-6	2012/12/19
Furan	203-727-3	110-00-9	2012/12/19
N,N-dimethylformamide	200-679-5	68-12-2	2012/12/19
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-	2012/12/19
4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	-	-	2012/12/19
4,4'-methylenedi-o-toluidine	212-658-8	838-88-0	2012/12/19
Diethyl sulphate	200-589-6	64-67-5	2012/12/19
Dimethyl sulphate	201-058-1	77-78-1	2012/12/19
Lead oxide sulfate	234-853-7	12036-76-9	2012/12/19
Lead titanium trioxide	235-038-9	12060-00-3	2012/12/19
Acetic acid, lead salt, basic	257-175-3	51404-69-4	2012/12/19
[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9	2012/12/19
Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	214-604-9	1163-19-5	2012/12/19
N-methylacetamide	201-182-6	79-16-3	2012/12/19
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7	2012/12/19
1,2-Diethoxyethane	211-076-1	629-14-1	2012/12/19
Tetralead trioxide sulphate	235-380-9	12202-17-4	2012/12/19
N-pentyl-isopentylphthalate	-	776297-69-9	2012/12/19
Dioxobis(stearato)trilead	235-702-8	12578-12-0	2012/12/19
Tetraethyllead	201-075-4	78-00-2	2012/12/19
Pentalead tetraoxide sulphate	235-067-7	12065-90-6	2012/12/19
Pentacosafuorotridecanoic acid	276-745-2	72629-94-8	2012/12/19
Tricosafuorododecanoic acid	206-203-2	307-55-1	2012/12/19
Heptacosafuorotetradecanoic acid	206-803-4	376-06-7	2012/12/19
1-bromopropane (n-propyl bromide)	203-445-0	106-94-5	2012/12/19
Methoxyacetic acid	210-894-6	625-45-6	2012/12/19
4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7	2012/12/19
Methyloxirane (Propylene oxide)	200-879-2	75-56-9	2012/12/19
Trilead dioxide phosphonate	235-252-2	12141-20-7	2012/12/19
o-aminoazotoluene	202-591-2	97-56-3	2012/12/19
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0	2012/12/19
4,4'-oxydianiline and its salts	202-977-0	101-80-4	2012/12/19
Orange lead (lead tetroxide)	215-235-6	1314-41-6	2012/12/19
Biphenyl-4-ylamine	202-177-1	92-67-1	2012/12/19
Diisopentylphthalate	210-088-4	605-50-5	2012/12/19
Fatty acids, C16-18, lead salts	292-966-7	91031-62-8	2012/12/19
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	204-650-8	123-77-3	2012/12/19
Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7	2012/12/19
Lead cyanamidate	244-073-9	20837-86-9	2012/12/19
α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	229-851-8	6786-83-0	2012/06/18
N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1	2012/06/18
1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-	423-400-0	59653-74-6	2012/06/18

Substance name	EC(CAS No.)	CAS #	SVHC Pub. Date
(1H,3H,5H)-trione (β-TGIC)			
Diboron trioxide	215-125-8	1303-86-2	2012/06/18
1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2	2012/06/18
4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	209-218-2	561-41-1	2012/06/18
Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2	2012/06/18
Formamide	200-842-0	75-12-7	2012/06/18
[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	208-953-6	548-62-9	2012/06/18
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4	2012/06/18
[4-[[4-anilino-1-naphthyl]]4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	219-943-6	2580-56-5	2012/06/18
1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	219-514-3	2451-62-9	2012/06/18
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8	2012/06/18
4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9	2011/12/19
N,N-dimethylacetamide	204-826-4	127-19-5	2011/12/19
Phenolphthalein	201-004-7	77-09-8	2011/12/19
Lead diazide, Lead azide	236-542-1	13424-46-9	2011/12/19
Lead dipicrate	229-335-2	6477-64-1	2011/12/19
1,2-dichloroethane	203-458-1	107-06-2	2011/12/19
Calcium arsenate	231-904-5	7778-44-1	2011/12/19
Dichromium tris(chromate)	246-356-2	24613-89-6	2011/12/19
2-Methoxyaniline; o-Anisidine	201-963-1	90-04-0	2011/12/19
Pentazinc chromate octahydroxide	256-418-0	49663-84-5	2011/12/19
Arsenic acid	231-901-9	7778-39-4	2011/12/19
Potassium hydroxyoctaoxidizincatedichromate	234-329-8	11103-86-9	2011/12/19
Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4	2011/12/19
Lead styphnate	239-290-0	15245-44-0	2011/12/19
Trilead diarsenate	222-979-5	3687-31-8	2011/12/19
Zirconia Aluminosilicate Refractory Ceramic Fibres <i>are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight</i>			2011/12/19
Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8	2011/12/19
Aluminosilicate Refractory Ceramic Fibres <i>are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight</i>			2011/12/19
Bis(2-methoxyethyl) ether	203-924-4	111-96-6	2011/12/19
2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4	2011/12/19
Cobalt dichloride	231-589-4	7646-79-9	2011/06/20 - 2008/10/28
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6	2011/06/20
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear	271-084-6	68515-42-4	2011/06/20

Substance name	EC(CAS No.)	CAS #	SVHC Pub. Date
alkyl esters			
Strontium chromate	232-142-6	7789-06-2	2011/06/20
1-Methyl-2-pyrrolidone	212-828-1	872-50-4	2011/06/20
1,2,3-Trichloropropane	202-486-1	96-18-4	2011/06/20
2-Ethoxyethyl acetate	203-839-2	111-15-9	2011/06/20
Hydrazine	206-114-9	302-01-2, 7803-57-8	2011/06/20
Cobalt(II) diacetate	200-755-8	71-48-7	2010/12/15
Cobalt(II) sulphate	233-334-2	10124-43-3	2010/12/15
2-Ethoxyethanol	203-804-1	110-80-5	2010/12/15
Acids generated from chromium trioxide and their oligomers. Names of the acids and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid.	231-801-5, 236-881-5	7738-94-5, 13530-68-2	2010/12/15
2-Methoxyethanol	203-713-7	109-86-4	2010/12/15
Chromium trioxide	215-607-8	1333-82-0	2010/12/15
Cobalt(II) carbonate	208-169-4	513-79-1	2010/12/15
Cobalt(II) dinitrate	233-402-1	10141-05-6	2010/12/15
Trichloroethylene	201-167-4	79-01-6	2010/06/18
Potassium dichromate	231-906-6	7778-50-9	2010/06/18
Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1	2010/06/18
Ammonium dichromate	232-143-1	7789-09-5	2010/06/18
Boric acid	233-139-2, 234-343-4	10043-35-3, 11113-50-1	2010/06/18
Sodium chromate	231-889-5	7775-11-3	2010/06/18
Disodium tetraborate, anhydrous	215-540-4	1303-96-4, 1330-43-4, 12179-04-3	2010/06/18
Potassium chromate	232-140-5	7789-00-6	2010/06/18
Acrylamide	201-173-7	79-06-1	2010/03/30
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2	2010/01/13
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8	2010/01/13
Anthracene oil	292-602-7	90640-80-5	2010/01/13
2,4-Dinitrotoluene	204-450-0	121-14-2	2010/01/13
Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2	2010/01/13
Anthracene oil, anthracene-low	292-604-8	90640-82-7	2010/01/13
Tris(2-chloroethyl)phosphate	204-118-5	115-96-8	2010/01/13
Diisobutyl phthalate	201-553-2	84-69-5	2010/01/13
Lead chromate	231-846-0	7758-97-6	2010/01/13
Anthracene oil, anthracene paste	292-603-2	90640-81-6	2010/01/13
Pitch, coal tar, high temp.	266-028-2	65996-93-2	2010/01/13
Anthracene oil, anthracene paste, distn. lights	295-278-5	91995-17-4	2010/01/13
Lead hydrogen arsenate	232-064-2	7784-40-9	2008/10/28
Benzyl butyl phthalate (BBP)	201-622-7	85-68-7	2008/10/28
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2	2008/10/28
Diarsenic trioxide	215-481-4	1327-53-3	2008/10/28
Bis(tributyltin)oxide (TBTO)	200-268-0	56-35-9	2008/10/28
Triethyl arsenate	427-700-2	15606-95-8	2008/10/28
Diarsenic pentaoxide	215-116-9	1303-28-2	2008/10/28
Sodium dichromate	234-190-3	7789-12-0, 10588-01-9	2008/10/28
Dibutyl phthalate (DBP)	201-557-4	84-74-2	2008/10/28
4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9	2008/10/28
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8	2008/10/28
Anthracene	204-371-1	120-12-7	2008/10/28
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	247-148-4 and 221-695-9	25637-99-4, 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)	2008/10/28

**Annex XVII list to Substances restricted under REACH** (includes all restrictions in REACH and Directive 76/769/EEC (70) as of 18 September, 2019:

Entry #	Substance Name	EC (CAS No.)	CAS #
1	Polychlorinated terphenyls (PCTs)	-	-
2	Chloroethene, Chloroethylene (Vinyl chloride)	200-831-0	75-01-4
3	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	-	-
4	Tris (2,3 dibromopropyl) phosphate	-	126-72-7
5	Benzene	200-753-7	71-43-2
6	Asbestos fibres	-	-
7	Tris(aziridinyl)phosphin oxide	208-892-5	545-55-1
8	Polybromobiphenyls, Polybrominatedbiphenyls (PBB)	-	59536-65-1
9	(a) Soap bark powder (Quillaja saponaria) and its derivatives containing saponines (b) Powder of the roots of Helleborus viridis and Helleborus niger (c) Powder of the roots of Veratrum album and Veratrum nigrum (d) Benzidine and/or its derivatives (e) o-Nitrobenzaldehyde (f) Wood powder	273-620-4, 202-199-1, 209-025-3	68990-67-0, 92-87-5, 552-89-6
10	Ammonium polysulphide, Ammonium sulphide, Ammonium hydrogen sulphide	232-989-1, 235-223-4, 235-184-3	9080-17-5, 12135-76-1, 12124-99-1
11	Volatile esters of bromoacetic acids: Butyl bromoacetate, Propyl bromoacetate, Ethyl bromoacetate, Methyl bromoacetate	242-729-9, 203-290-9, 202-499-2	18991-98-5, 35223-80-4, 105-36-2, 96-32-2
12	2-naphthylamine and its salts	202-080-4, 210-313-6, 209-030-0	91-59-8, 612-52-2, 553-00-4
13	Benzidine and its salts	202-199-1	92-87-5
14	4-Nitrobiphenyl	202-204-7	92-93-3
15	4-Aminobiphenyl xenylamine and its salts	202-177-1	92-67-1
16	Lead carbonates	215-290-6, 209-943-4	1319-46-6, 598-63-0
17	Lead sulphates	231-198-9, 239-831-0	7446-14-2, 15739-80-7
18	Mercury compounds	-	-
18a	Mercury	231-106-7	7439-97-6
19	Arsenic compounds	-	-
20	Organostannic compounds	-	-
21	Di-μ-oxo-di-n-butylstanniohydroxyborane / Dibutyltin hydrogen borate C <sub>8</sub> H <sub>19</sub> BO <sub>3</sub> Sn (DBB)	401-040-5	75113-37-0
22	Pentachlorophenol and its salts and esters	-	-
23	Cadmium and its compounds	-	-
24	Monomethyl — tetrachlorodiphenyl methane Trade name: Ugilec 141	-	76253-60-6
25	Monomethyl-dichloro-diphenyl methane Trade name: Ugilec 121, Ugilec 21	-	-
26	Monomethyl-dibromo-diphenyl methane bromobenzylbromotoluene, mixture of isomers Trade name: DBBT	-	99688-47-8
27	Nickel and its compounds	-	-
28	Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as carcinogen category 1A or 1B (Table 3.1) or carcinogen category 1 or 2 (Table 3.2)	-	-
29	Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as germ cell mutagen category 1A or 1B (Table 3.1) or mutagen category 1 or 2 (Table 3.2)	-	-



Entry #	Substance Name	EC (CAS No.)	CAS #
30	Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as toxic to reproduction category 1A or 1B (Table 3.1) or toxic to reproduction category 1 or 2 (Table 3.2)		
31	Low temperature tar oil, alkaline; extract residues (coal), low temperature coal tar alkaline, Tar acids, coal, crude; crude phenols; Distillates (coal tar), upper; heavy anthracene oil, Creosote oil; wash oil; Distillates (coal tar), naphthalene oils; naphthalene oil	-	-
32	Chloroform	200-663-8	67-66-3
33	Deleted due to REACH updates		
34	1,1,2-Trichloroethane	201-166-9	79-00-5
35	1,1,2,2-Tetrachloroethane	201-197-8	79-34-5
36	1,1,1,2-Tetrachloroethane	-	630-20-6
37	Pentachloroethane	200-925-1	76-01-7
38	1,1-Dichloroethene	200-864-0	75-35-4
39	Deleted due to REACH updates		
40	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not	-	-
41	Hexachloroethane	200-666-4	67-72-1
42	Deleted due to REACH updates		
43	Azocolourants and Azodyes	-	-
45	Diphenylether, octabromo derivative C12H2Br8O	-	-
46a	Nonylphenol ethoxylates (NPE) (C2H4O) <sub>n</sub> C15H24O		
46	Nonylphenol C6H4(OH)C9H19 and Nonylphenol ethoxylates	246-672-0, 500-024-6, 500-045-0, 614-460-0, 500-315-8, 609-346-2, 500-209-1	25154-52-3, 9016-45-9, 26027-38-3, 68412-53-3, 127087-87-0, 37205-87-1, 68412-54-4
47	Chromium VI compounds	-	-
48	Toluene	203-625-9	108-88-3
49	Trichlorobenzene	204-428-0	120-82-1
50	Polycyclic-aromatic hydrocarbons (PAHs): (a) Benzo[a]pyrene (BaP) (b) Benzo[e]pyrene (BeP) (c) Benzo[a]anthracene (BaA) (d) Chrysen (CHR) (e) Benzo[b]fluoranthene (BbFA) (f) Benzo[j]fluoranthene (BjFA) (g) Benzo[k]fluoranthene (BkFA) (h) Dibenzo[a,h]anthracene (DBAhA)	-	50-32-8, 192-97-2, 56-55-3, 218-01-9, 205-99-2, 205-82-3, 207-08-9, 53-70-3
52	Phthalates: 1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich, 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich, Di-"isononyl" phthalate (DINP), Di-"isodecyl" phthalate (DIDP), Di-n-octyl phthalate (DNOP)	271-090-9, 271-091-4, 249-079-5, 247-977-1, 204-214-7	68515-48-0, 68515-49-1, 28553-12-0, 26761-40-0, 117-84-0
53	This PFOS entry was deleted from REACH in 2010 since PFOS is now subject to EU POPs regulation.		
54	2-(2-methoxyethoxy)ethanol (DEGME)	203-906-6	111-77-3
55	2-(2-butoxyethoxy)ethanol (DEGBE)	203-961-6	112-34-5
56	Methylenediphenyl diisocyanate (MDI)	219-799-4, 247-714-0, 202-966-0, 227-534-9	2536-05-2, 26447-40-5, 101-68-8, 5873-54-1
57	Cyclohexane	203-806-2	110-82-7
58	Ammonium nitrate (AN)	229-347-8	6484-52-2
59	Dichloromethane	200-838-9	75-09-2
60	Acrylamide	201-173-7	79-06-1
61	Dimethylfumarate (DMF)	210-849-0	624-49-7

Entry #	Substance Name	EC (CAS No.)	CAS #
62	Phenylmercury 2-ethylhexanoate, Phenylmercury acetate, Phenylmercury neodecanoate, Phenylmercury octanoate, Phenylmercury propionate	236-326-7, 200-532-5, 247-783-7, 203-094-3	13302-00-6, 62-38-4, 26545-49-3, 13864-38-5, 103-27-5
63	Lead and its compounds	-	-
64	1,4-Dichlorobenzene	203-400-5	106-46-7
65	Inorganic ammonium salts	-	-
66	Bisphenol A	201-245-8	80-05-7
67	Bis(pentabromophenyl)ether (decaBDE)	214-604-9	1163-19-5
68	Perfluorooctanoic acid (PFOA) and its salts	206-397-9	335-67-1
69	Methanol	200-659-6	67-56-1
70	Octamethylcyclotetrasiloxane (D4); Decamethylcyclopentasiloxane (D5)	209-136-7	556-67-2
71	1-methyl-2-pyrrolidone	212-828-1	872-50-4
72	The following substances which are classified as carcinogenic, mutagenic or toxic for reproduction, category 1A or 1B (See group members) [Entry 72]	-	-
73	(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silanetriol and any of its mono-, di- or tri-O-(alkyl) derivatives	-	-

**Persistent Organic Pollutants Declaration**

NVE certifies to the best of our knowledge that NVE products do not contain the substances listed below as covered by Regulation (EU) 2019/1021 Persistent Organic Pollutants (POP) and 2004/259/EC Decision aimed at controlling, reducing or eliminating persistent organic pollutants (POPs) from the environment.

**Chemicals listed subject to POPs Regulation:**

Substance Name	CAS #
Aldrin	309-00-2
Alkanes	85535-84-8
Chlordane	57-74-9
Chlordecone	143-50-0
DDT (1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane)	50-29-3
Decabromodiphenyl ether (commercial mixture, c-decaBDE)	1163-19-5
Dieldrin	60-57-1
Endosulfan and its related isomers	115-29-7, 959-98-8, 33213-65-9
Endrin	72-20-8
Heptabromodiphenyl ether (heptaBDE)	
Heptachlor	76-44-8
Hexabromobiphenyl (HBB)	36355-01-8, 134237-50-6, 134237-51-7, 134237-52-8
Hexabromocyclododecane (HBCDD)	25637-99-4, 3194-55-6
Hexabromocyclododecane (HBCD)	25637-99-4, 3194-55-6, 134237-50-6, 134237-51-7, 134237-52-8
Heptabromodiphenyl ether (heptaBDE)	68928-80-3 (and others)
Hexabromodiphenyl ether	36483-60-0 (and others)
Hexachlorobenzene (HCB)	118-74-1
Hexachlorobutadiene (HCBd)	87-68-3
$\alpha$ -Hexachlorocyclohexane ( $\alpha$ -HCH)	319-84-6
$\beta$ -Hexachlorocyclohexane ( $\beta$ -HCH)	319-85-7
Lindane ( $\gamma$ -Hexachlorocyclohexane, $\gamma$ -HCH)	58-89-9, 608-73-1
Mirex	2385-85-5
Pentabromodiphenyl ether (pentaBDE)	32534-81-9 (and others)
Pentachlorobenzene (PeCB)	608-93-5
Pentachlorophenol (PCP)	87-86-5, 307-35-7, 1691-99-2, 1763-23-1, 2795-39-3, 4151-50-2,
Sodium pentachlorophenate	24448-09-7, 29081-56-9, 29457-72-5, 31506-32-8
Sodium pentachlorophenate monohydrate	56773-42-3, 70225-14-8, 251099-16-8 (and others)
Pentachlorophenyl laurate	
Pentachloroanisole	
Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds	335-67-1 (and others)
Perfluorooctane sulfonic acid (PFOS)	1763-23-1
Perfluorooctane sulfonyl fluoride (PFOS-F)	307-35-7
Perfluorooctane sulfonic acid and its derivatives (PFOS)	
Polychlorinated biphenyls (PCB)	1336-36-3 (and others)
Polychlorinated dibenzo-p-dioxins (PCDD)	
Polychlorinated dibenzofurans (PCDF)	
Polychlorinated naphthalenes (PCN)	70776-03-3 (and others)
Polycyclic aromatic hydrocarbons (PAHs)	
Short-chain chlorinated paraffins (SCCPs)	85535-84-8
Alkanes C10-C13, chloro (short-chain chlorinated paraffins) (SCCPs)	85535-84-8
Tetrabromodiphenyl ether (tetraBDE)	40088-47-9 (and others)
Toxaphene	8001-35-2

**California Proposition 65**

NVE certifies to the best of our knowledge that NVE products do not contain the substances regulated by the California Proposition 65, as updated January 3, 2020, in concentrations resulting in exposures above the safe harbor levels as determined by the Office of Environmental Health Hazard Assessment (OEHHA). Therefore, NVE products are not required to have the California Proposition 65 warning labels.

**Halogen Free Compliance Declaration**

NVE certifies that to the best of our knowledge that NVE products delivered by us are complying with International Electrochemical Commission's (IEC) definition of Halogen-Free requirements. (Br < 900ppm, Cl < 900ppm, Br+Cl < 1500ppm)

In addition, NVE requires that its parts and material suppliers provide full material disclosure on their products as part of the ongoing material declaration effort.

Certified by,

James Yazvec  
Compliance and Document Control  
July 23, 2020