

### Chembridge International Corp.

TEL: +886-2-27037235 FAX: +886-2-27043915 http://www.chembridge.com.tw

# **Product List of Photoinitiators**

_		http://www.chembridge.com.tw											
		Product Name	Molecular Formula	Chemical name	Structure/ CAS No.	Appearance	Purity	Melting Point	Volatile	Max UV Absorption	Characteristics	Application	
	1.	Chemcure-73	C <sub>10</sub> H <sub>12</sub> O <sub>2</sub>	2-Hydroxy-2-methyl propiophenone	O CH <sub>3</sub> -C-C-OH -CH <sub>3</sub> 7473-98-5	Clear, light yellow liquid	99%	<b>4</b> °C	-	245nm, 280nm, 331nm	A liquid, non- yellowing photoinitiator; exhibits solubility, reduce viscosity	Used in UV curable coating and ink systems	
	2.	Chemcure-73W	C <sub>12</sub> H <sub>16</sub> O <sub>4</sub>	2-Hydroxy-4'-(2- hydroxyethoxy)-2- methyl propiophenone	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Pale White Powder	98%↑	86-90 ℃	-	274nm	A hydrophilic, non- yellowing photoinitiator	Used in UV curable coating and ink systems	
	3.	Chemcure-481	C <sub>13</sub> H <sub>16</sub> O <sub>2</sub>	1- Hydroxycyclohexyphe nyl ketone	O OH C - C - C - C - C - C - C - C - C - C -	White crystalline powder	99%	45-49°C	0.50%	246nm, 280nm. 333nm	A non-yellowing photoinitiator	Used in UV curable coating and ink systems	
	4.	Chemcure-55	C <sub>9</sub> H <sub>8</sub> O <sub>3</sub>	Methylbenzoyl formate	O O C-C-OCH <sub>3</sub>	Clear liquid	98%	17℃	-	255nm, 325nm	A highly efficient, liquid photoinitiator	A non-yellowing photoinitiator that varnishes clear coating, especially in thickness film	
	5.	Chemcure-TPO	C <sub>22</sub> H <sub>21</sub> PO <sub>2</sub>	Diphenyl (2,4,6- trimethylbenzoyl)- phosphine oxide	75980-60-8	Yellowish powder	99%	88-92°C	0.50%	295nm, 368nm, 380nm, 393nm	A highly sensitive photoinitiator	Used mostly in white ink system	
	6.	Chemcure-81	C <sub>26</sub> H <sub>27</sub> O <sub>3</sub> P	Phosphine oxide, phenyl bis (2,4,6- trimethyl benzoyl)	0 0 0 	Light yellow Powder	99%	<b>127-133</b> ℃	0.5↓%	295nm, 370nm	A highly sensitive photoinitiator	Used mostly in white ink system	
	7.	Chemcure-709	C <sub>15</sub> H <sub>21</sub> O <sub>2</sub> NS	2-methyl-1-[4- (methylthio)phenyl]- 2-(4-morpholinyl)-1- propanone	H₃CS — Q CH₃ C-C-N CH₃ 71868-10-5	White to light beige powder	99%	70-75℃	0.25%	230nm, 304nm	A reactive photoinitiator; exhibits high extinction coefficients at major	Exhibits strong absorption characteristics; used in curing pigmented inks and coatings	
	8.	Chemcure-96	C <sub>23</sub> H <sub>30</sub> N <sub>2</sub> O <sub>2</sub>	2-Benzyl-2- (dimethylamino)-1-[4- (4-morpholinyl) phenyl]-1-butanone	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Slightly yellow powder	99%	110-114℃	0.30%	233nm, 324nm	A reactive photoinitiator; exhibits high extinction coefficients at major emission lines of UV	Exhibits strong absorption characteristics; used in curing pigmented inks and coatings	

Updated in Apr. 1<sup>st</sup>, 2011

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Updated by F.C



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9	. <b>c</b>	Chemcure-97	C <sub>24</sub> H <sub>32</sub> N <sub>2</sub> O <sub>2</sub>	2-Dimethylamino-2- (4-methyl-benzyl)-1- (4-morpholin-4-yl- phenyl)-butan-1-one	O C <sub>2</sub> H <sub>5</sub> CH <sub>3</sub> C-C-C-N CH <sub>2</sub> CH <sub>3</sub> CH <sub>3</sub> 119344-86-4	Slightly yellow powder	99%	<b>82-87</b> ℃	-	233nm, 324nm	initiate the	Exhibits strong absorption characteristics; used in curing pigmented inks and coatings
10	). <b>C</b>	Chemcure-78	C <sub>30</sub> H <sub>22</sub> F <sub>4</sub> N <sub>2</sub> Ti	Bis(.eta.5-2,4- cylcopentadien-1-yl)- bis(2,6-difluoro-3- (1H-pyrrol-1-yl)- Phenyl)titanium	125051-32-3	Yellow to Orange Powder	99%	160-170℃	-	398nm, 470nm	Highly sensitive	Exhibits strong absorption characteristics; used for curing pigmented inks and coatings
11	<b>c</b>	Chemcure-ITX	C <sub>16</sub> H <sub>14</sub> OS	2-isopropyl thioxanthone	O CH <sub>3</sub> CH CH <sub>3</sub> CH CH <sub>3</sub>	Yellowish powder	99%	<b>74-76</b> ℃	0.50%	365nm	A highly efficient photoinitiator	Used mostly with Chemcure-709 in thick, pigmented films
12	2. <b>C</b>	Chemcure-2EAQ	C <sub>16</sub> H <sub>12</sub> O <sub>2</sub>	2-Ethyl Anthraquinone	C <sub>2</sub> H <sub>5</sub> 0 84-51-5	Light yellow flake / powder	98%	107-111℃	-	257nm	A highly efficient photoinitiator	Used in solder mask ink
13	3. <b>C</b>	Chemcure-DETX	C <sub>17</sub> H <sub>16</sub> OS	2,4-Diethyl Thioxanthone	C <sub>2</sub> H <sub>5</sub> C <sub>2</sub> H <sub>5</sub> 82799-44-8	Yellowish powder	99%	68°C	0.50%	365nm	A highly efficient photoinitiator	Can be used instead of Chemcure-ITX
14	ł. <b>C</b>	Chemcure-BDK	C <sub>16</sub> H <sub>16</sub> O <sub>3</sub>	Benzil Dimethyl Ketal	O OCH <sub>3</sub> C-C-C OCH <sub>3</sub> 24650-42-8	White crystalline powder	99.50%	63-67°C	0.20%	250nm, 340nm	A highly efficient photoinitiator used for UV-curing	Used to varnish wood coating and ink systems
15	5. <b>C</b>	Chemcure-BP	C <sub>13</sub> H <sub>10</sub> O	Benzophenone	0 119-61-9	White to slightly off- white flakes	99.50%	47-49°C	<0.1%	251nm	Achieves a fast surface cure; which reduces oxygen inhibition	Used in printing ink, wood varnishes, decorative coatings for food cartons, adhesives and solder



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16.	Chemcure-64	C <sub>13</sub> H <sub>9</sub> ClO	4-chloro Benzophenone	CI 134-85-0	White, free flow powder	99.50%	75-77℃	<b>≤0.25%</b>	-	Low odor Benzophenone type photoinitiator	Used in printing ink, wood varnishes, decorative coatings for food cartons, adhesives and solder
17.	Chemcure-65	C <sub>15</sub> H <sub>12</sub> O <sub>3</sub>	Methyl-2- benzoylbenzoate	O COOCH <sub>3</sub>	White crystal	99%	48-54℃	≦0.1%	-	Low odor Benzophenone type photoinitiator	Used in printing ink, wood varnishes, decorative coatings for food cartons, adhesives and solder
18.	Chemcure-PBP	C <sub>19</sub> H <sub>14</sub> O	4-phenyl Benzophenone	2128-93-0	Light yellowish solid	99%	99-103℃	-	289nm	Low odor Benzophenone type photoinitiator	Used in printing ink, wood varnishes, decorative coatings for food cartons, adhesives and solder masks
19.	Chemcure-BCIM	C <sub>42</sub> H <sub>28</sub> Cl <sub>2</sub> N <sub>4</sub>	2,2'-Bis(2- Chlorophenyl)-4,4', 5,5'-Tetraphenyl-1,2'- Bi-imidazole	Ph Ph N CI CI N Ph	Yellowish powder	99%	200-204°C	0.10%	263nm	A highly efficient photoinitiator	Used in dry film, photoresist, printing plate
20.	Chemcure-TCDM		2,2',4-tris(2- chlorophenyl)-5-(3,4- dimethoxyp-enly)-4'5 '-diphenyl-1,1'- biimidazole	CI N N N CI CI N N Ph	Light yellow powder	-	130-136℃	1.00%	-	A highly efficient photoinitiator	Used in dry film, photoresist, printing plate
21.	Chemcure-PDCA	C <sub>14</sub> H <sub>10</sub> Cl <sub>2</sub> O <sub>2</sub>	4-phenoxy-2.'2'- Dichloro Acetophenone	О — С-снсі₂ 59867-68-4	Yellowish powder	99%	65-69°C	0.50%	289nm	A highly efficient photinitiator	Used in dry film, photoresist, printing plate
22.	Chemcure-EDB	C <sub>11</sub> H <sub>15</sub> NO <sub>2</sub>	Ethyl-4- (dimethylamino)Benzo ate	$H_3C$ $O$ $  $ $C$ $-OC_2H_5$ $  $ $10287-53-3$	White crystalline powder	99%	62-68°C	0.10%	310nm	A highly soluble, low odor, low toxicity amine synergist	Used in printing ink, wood varnishes, decorative coatings for food cartons, adhesives and solder
23.	Chemcure-DMBI	C <sub>14</sub> H <sub>21</sub> NO <sub>2</sub>	Isoamyl 4- (Dimethylamino)benzo ate	N-C-OCH2CH2CH	Light yellow transparent liquid	99%	28-30℃	0.50%	315nm	A highly soluble, low odor, low toxicity amine synergist	Used in printing ink, wood varnishes, decorative coatings for food cartons, adhesives and solder

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2	4.	Chemcure-EHA	C <sub>17</sub> H <sub>27</sub> NO <sub>2</sub>	2-Ethyl Hexyl-4- (dimethylamino) Benzoate	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Light yellow colorless liquid	99%	185-195°C	1.00%	320nm	A highly insoluble liquid amine synergist	Used in printing ink, wood varnishes, decorative coatings for food cartons, adhesives and solder
2	_	Chemcure-MEK (EAB-F)	C <sub>21</sub> H <sub>28</sub> N <sub>2</sub> O	4,4'Bis(diethylamino) Benzophenone (Michler's Ethyl Ketone)	$C_2H_5$ $C_2H_5$ $C_2H_5$ $C_2H_5$ $C_2H_5$	Light yellow powder	99%	92°C	0.50%	365nm	A photoinitiator that increases the sensitivity when combined with BCIM	Used in dry film, photoresist, printing plate
2	:6.	Chemcure-BMS	C <sub>20</sub> H <sub>16</sub> OS	4-(4'- methylphenylthio)- benzophenone	O CH <sub>3</sub> 83846-85-9	Pale cream powder	99%	68°C	0.50%	312nm	A highly efficient photoinitiator	Used in white colorless and printing ink system
2	27.	Chemcure-454	C <sub>33</sub> H <sub>30</sub> N <sub>2</sub>	1,7-Bis(9- acridinyl)heptane	N (CH <sub>2</sub> ) <sub>7</sub> N 141946-28-3	Yellow powder	98%	148-152℃	0.50%	-	A highly efficient photoinitiator	Used in photoresist, color resist
2	8.	Chemcure-NPG	C <sub>8</sub> H <sub>9</sub> NO <sub>2</sub>	N-Phenyl Glycine	$H_{N-CH_{2}-C-OH}$	Yellow crystalline powder	98%	123-125℃	-	-	Increases sensitivity of UV curable system	Used in dry film, photoresist, printing plate