

This table presents the life cycle identified by PMRC member companies and their downstream customers for Palladium and Palladium compounds. As far as possible the uses have been grouped, and the use descriptors collated. All use descriptors provided have been included at this stage, except those that are incompatible with use as an intermediate (see footnotes 1 - 4). When the use was stated to be an intermediate or processing aid, no subsequent service life has been included, as the substance will be consumed in these processes or will not form part of the article. However, for other uses, services lives have been assumed, although often no information has been provided for these.

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
Ammonium hexachloropalladate	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs and ERCs to be confirmed.
	Intermediate - Industrial ^{1,2,4}	8, 9	3, 9, 22, 27a	6a	NA	19		
Dichlorobis(tri-phenylphosphine) Palladium	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs and ERCs to be confirmed.
	Intermediate - Industrial ^{1,2}	3	8b, 9	1 6a	NA	19		SU3 is a general industrial SU and cannot be reported in IUCLID. Specific SU required – SU 8, 9? ERC 1 can only be selected for manufacture. Add separate 'Manufacture of the substance (as such)'
	Catalyst - Industrial	3 , 8, 9, 24	1, 9, 15	1 , 4, 5	NA	21		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
								selected for manufacture. Add separate 'Manufacture of the substance (as such)'
Dihydrogen tetrachloropaladate		These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs and ERCs to be confirmed.
	<u>Formulation</u>	These descriptors cannot be reported		<u>2</u>				Formulation added. PROCs to be added, SUs and ERCs to be confirmed.
	Intermediate - Industrial ^{1,2,3,4}	3 , 8, 9, 10, 14	1, 3, 4, 8a, 8b, 9, 15, 27b	1, 2 , 6a		14, 19, 21		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such)' and 'Formulation' uses
	Intermediate - Professional ^{1,2,3,4}	3 , 9, 14	1, 3, 8b, 15, 27b	1, 2 , 6a				SU 3 is a general industrial SU and should not be included for a professional use. All selected ERCs are incompatible with professional use – is a professional use required?
	Metal surface	3 -10	4, 8b, 9, 13,	2 , 4, 5		14		SU3 is a general industrial

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
	treatment – Industrial		19					SU and cannot be reported in IUCLID. ERC 2 can only be selected for Formulation, not industrial use. Separate 'Formulation' use added.
	Article service life of surface treated products							
Dipotassium hexachloropal ladate	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	Intermediate - Industrial ^{1,2}	3	4, 8a, 8b, 9, 26	1 , 6a		19		SU3 is a general industrial SU and cannot be reported in IUCLID. Specific SU required – SU 8, 9? ERC 1 can only be selected for manufacture. Add separate 'Manufacture of the substance (as such)'
Disodium tetrachloropal ladate	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	Intermediate - Industrial ^{1,2}	3 , 8, 9	1, 3, 4, 8b, 9	1 , 6a		19		SU3 is a general industrial SU and cannot be reported in IUCLID.

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
								ERC 1 can only be selected for manufacture. Add separate 'Manufacture of the substance (as such)'
Palladium (II) diacetate	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	Intermediate - Industrial	3 ,9	1, 3, 5, 8b, 9	1 ,6a		19		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for manufacture. Add separate 'Manufacture of the substance (as such)'
	Catalyst - Industrial	3 ,8, 9, 24	1, 4, 8b, 9, 15	1 ,4, 5		20, 21, 0 (catalyst)		SU3 is a general industrial SU and cannot be reported in IUCLID.. ERC 1 can only be selected for manufacture. Add separate 'Manufacture of the substance (as such)'
	Reactive processing aid - Industrial	3 ,9, 24	3, 8b	6b				SU3 is a general industrial SU and cannot be reported in IUCLID.
Palladium diammine dichloride	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
	<u>Formulation</u>	These descriptors cannot be reported		<u>2</u>				Formulation added. PROCs to be added, SUs and ERCs to be confirmed.
	Intermediate - Industrial ^{1,2,4}	3 , 8, 9, 10, 14	3, 4, 8a, 8b, 9, 15, 26	1, 2 , 6a		14, 19, 20, 21, 0 (catalyst)		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such)' and 'Formulation' uses.
	Electroplating or metal surface treatment- Industrial	3 , 15, 16	4, 5, 8b, 13, 26, 0 (Cleaning)	5, 6a	2, 7	14, 19		SU3 is a general industrial SU and cannot be reported in IUCLID.
	Article service life of surface treated products							
Palladium	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	<u>Formulation</u>	These descriptors cannot be		<u>2, 3</u>				Formulation added. PROCs to be added, SUs and ERCs to be confirmed.

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
		reported						
	Intermediate - Industrial ^{1,2,3,4}	3 , 8, 9, 10, 14	1, 3, 4, 5, 8b, 9, 14, 15, 21, 24, 26	1 , 6a	1, 3, 7	7, 19, 21		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for manufacture. Add separate 'Manufacture of the substance (as such)'
	Production and use of Pd metal containing catalysts in the pharmaceutical industry - Industrial	3 , 9, 10, 0 (Pharmaceutical industry)	1, 2, 3, 4, 8a, 8b, 9, 13, 14, 15, 27a	1 , 3 , 4, 6a		3, 19, 0 (catalytic active substance)	0 (industrial catalysts)	SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 3 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such) and 'Formulation' uses.
	Production and use of Pd metal containing catalysts in catalytic converters- Industrial	9, 10	1, 2, 3, 4, 8a, 8b, 9, 13, 14, 15, 27a	4, 6a		3, 19, 0 (catalytic active substance)	0 (industrial catalysts)	SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 3 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such) and 'Formulation' uses.

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
	Metal Surface treatment - Industrial	3 , 15, 24	2, 8b, 13, 26, 0 (cleaning)	2 , 5	7	14, 19		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 2 can only be selected for Formulation. Add separate 'Formulation' uses.
	Reforming of Pd - Industrial	3 , 14, 15, 16, 17, 20, 21 , 24, 0 (precious metals production / Banks / C32.1.2 - Manufacture of jewellery and related articles)	1, 3, 4, 5, 6, 8a, 8b, 9, 10, 13, 14, 19, 21, 22, 23, 24, 25, 26, 27a, 27b, 0 (melting process / printing)	1, 2, 3, 4, 5, 7, 8c, 11a, 12a, 0 (development of semifinished products)	1, 2, 7, 0 (precious metal products, coins and medals, jewellery, investment ingots, technical products, dental products, dental products)	1, 7, 91, 14, 21, 33, 38, 0 (precious metal products, coins and medals, jewellery, investment ingots, technical products, dental alloys, sheet / wire)		SU3 is a general industrial SU and cannot be reported in IUCLID.. SU21 is a general consumer SU and cannot be reported in IUCLID. Does this SU relate to Article service life – Consumer, for handling of the final products? ERC 1 can only be selected for Manufacture, and ERCs 2 and 3 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such) and 'Formulation' uses ERC 8a cannot be selected for an industrial use – included for Professional use below ERCs 11a and 12a can only be selected for article service life – Article service

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
								life (Consumer, Professional)needs to be added for these products
	Reforming of Pd - Professional	3 , 14, 15, 16, 17, 21, 22 , 24, 0 (C32.1.2 - Manufacture of jewellery and related articles)	4, 5, 6, 8a, 8b, 9, 10, 13, 19, 22, 24, 25, 26, 0 (melting process / printing)	1, 2, 3, 4, 5, 7 , 8a, 8c, 8d, 10b,	1, 2, 7, 0 (sensor applications)	1, 7, 9a, 14, 21, 33, 38, 0 (jewellery)		<p>SU3 is a general industrial SU and cannot be reported in IUCLID.</p> <p>SU21 and SU 22 are general professional and consumer SUs and cannot be reported in IUCLID.</p> <p>Does SU 21 relate to Article service life – Consumer, for handling of the final products?</p> <p>ERC 1 can only be selected for Manufacture, and ERCs 2 and 3 can only be selected for Formulation.</p> <p>Add separate ‘Manufacture of the substance (as such) and ‘Formulation’ uses</p> <p>ERCs 4, 5 and 7 can only be selected for Industrial use (covered above).</p> <p>ERCs 11a and 12a can only be selected for article service life – Article service life (Consumer, Professional)needs to be added for these products</p>

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
	Manufacture of Pd containing alloys - Industrial	2a, 3 , 14, 15, 16, 17, 20, 21 , 22 , 0 (precious metals production / jewellery use)	1, 3, 4, 5, 6, 8a, 8b, 9, 13, 14, 22, 23, 24, 25, 26, 0 (Alloy(ing) / mechanical development of semifinished products)	1, 2, 3 , 6a, 8a, 8d , 10b, 11a , 12a , 0 (development of semifinished products)	3, 7, 0 (precious metal products, jewellery, dental alloys, technical products)	7, 9a, 14, 0 (precious metal products, jewellery, dental alloys, technical products)		SU3 is a general industrial SU and cannot be reported in IUCLID. SU21 and SU 22 are general professional and consumer SUs and cannot be reported in IUCLID. Professional use is covered below. Does SU 21 relate to Article service life – Consumer, for handling of the final products? ERC 1 can only be selected for Manufacture, and ERCs 2 and 3 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such) and 'Formulation' uses ERCs 8a and 8d can only be selected for Professional use – add to use below? ERCs 10b, 11a and 12a can only be selected for article service life – add article service life for the finished products
	Manufacture of Pd containing	3 , 15, 22	5, 22, 24, 26	1, 2 , 8a, 8d	7	7, 0 (precious		SU3 is a general industrial SU SU22 is a general

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
	alloys - Professional					metal products)		professional SU – cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such) and 'Formulation' uses ERCs 8a and 8d selected for industrial use above, but these relate to professional use so have been added here.
	Handling and use of Pd containing materials – Industrial (Article service life)	<i>No relevant use descriptors supplied. However, uses in Trading, Surface treated materials, Technical Products, Precious metal products, Coins, Medals, Electronics, Dental alloys and Jewellery were indicated</i>			7			
	Handling and use of Pd containing materials – Professional (Article service life)				7			

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
	Handling and use of Pd containing materials – Consumer (Article service life)				7			
	Article service life of automotive catalysts							
Palladium (II) di(4-oxopent-2-en-2oate)	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	Intermediate - Industrial ^{1,2}	3 , 9	3, 4, 8b, 9	1 <u>6a</u>		19		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for manufacture. Add separate 'Manufacture of the substance (as such)' Should ERC 6a be selected for this intermediate use?
	Catalyst - Industrial	3 , 8, 9, 24	1, 9, 15	1 , 4, 5		21		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for manufacture. Add separate 'Manufacture of

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
								the substance (as such)'
Palladium chloride	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	<u>Formulation</u>	These descriptors cannot be reported		<u>2</u>				Formulation added. PROCs to be added, SUs and ERCs to be confirmed.
	Intermediate - Industrial ^{1,2,4}	3 , 8, 9, 10, 13	1, 2, 3, 4, 8b, 9, 15, 26	1, 2 , 6a	2, 4	9a, 14, 15, 19, 21		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such)' and 'Formulation' uses.
	Catalyst - Industrial	8, 10, 0	1, 3, 15	1 , 4, 5, 6a, 7	2, 4	9a, 14, 15, 19, 21		ERC 1 can only be selected for manufacture. Add separate 'Manufacture of the substance (as such)'
	Metal Surface Treatment - Industrial	3 , 4, 10, 11, 14, 15, 16, 17, 23	2, 3, 4, 5, 7, 8a, 8b, 9, 13, 15, 19, 26, 0 (cleaning)	2 , 4, 5, 7	2, 3, 4, 7	9a, 14, 15, 19, 21, 33		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 2 can only be selected for Formulation. Add separate 'Formulation' use.

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
	Metal Surface Treatment - Professional	3 , 10, 16	2, 4, 5, 8b, 9, 13, 15, 26	2 , 5 , 7	2, 7	14, 15, 33		SU3 is a general industrial SU and is not required in IUCLID. ERC 2 can only be selected for Formulation. ERCs 5 a and 7 can only be selected for Industrial use. ERCs for professional use required.
	Non-metal surface treatment - Industrial	3 , 10, 16	1, 2, 3, 4, 5, 7, 8b, 9, 13, 15, 19, 26	2 , 5, 6a, 6b, 7	2, 4, 7	9a, 14, 15, 21, 33		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 2 can only be selected for Formulation. Add separate 'Formulation' use.
	Manufacture of Inks and paints - Industrial	3 , 9, 16, 24	4, 9, 15, 26, 27b	1 , 2 , 5, 6a				SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such) and 'Formulation' use
	Use of Inks and paints - Industrial	Confirmed use, but use descriptors not provided				9a, 14, 19, 32		Use descriptors required
	Use of Inks and paints - Consumer	Confirmed use, but use descriptors not			2, 4	9a, 14, 19, 32		Use descriptors required

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
		provided						
	Article service life of surface treated products							
Palladium dinitrate	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	<u>Formulation</u>	These descriptors cannot be reported		<u>2</u>				Formulation added. PROCs to be added, SUs and ERCs to be confirmed.
	Intermediate - Industrial ^{1,2,3,4}	3 , 8, 9, 14	1, 3, 4, 5, 8a, 8b, 9, 15, 21, 27b	1, 2 , 6a	1	19, 21		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such)' and 'Formulation' uses.
	Intermediate - Professional ^{1,2,3,4}	3 , 9, 14	1, 3, 8b, 15, 27b	1, 2 , 6a				SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for manufacture, ERC 2 for Formulation and ERC 6a for

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)	
								Industrial use. Use descriptors for Professional use required. All selected ERCs are incompatible with professional use – is a professional use required?	
	Manufacture of Pd dinitrate containing catalysts - Industrial	3 -8, 9, 16, 17, 0	2, 3, 4, 5, 8a, 8b, 9, 13, 19, 22, 0 (Cleaning)	2 , 5, 8a	1	14, 19, 20, 0 (catalyst products)		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 2 can only be selected for Formulation. Add separate 'Formulation' use. ERC 8a can only be selected for Professional / consumer use – professional or consumer use required?	
	Use of Pd dinitrate containing catalyst - Industrial/Professional/Consumer	<i>Implied use</i>							
	Article service life of Pd dinitrate containing catalysts								
Palladium	<u>Manufacture of</u>	These		<u>1</u>			These descriptors	Manufacture of the	

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
sulphate	<u>the substance (as such)</u>	descriptors cannot be reported					cannot be reported	substance added. PROCs to be added, SUs to be confirmed.
	<u>Formulation</u>	These descriptors cannot be reported		<u>2</u>				Formulation added. PROCs to be added, SUs and ERCs to be confirmed.
	Intermediate - Industrial ^{1,2}	3 , 9, 10	2, 3, 4, 8b, 9, 15, 26	1, 2 , 6a		14, 19, 21		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such) and 'Formulation' use
	Used in galvanation or metal surface treatment - Industrial	3 , 10, 15	2, 4, 8b, 9, 13, 19, 26	2 , 4, 5	2	14		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 2 can only be selected for Formulation. Add separate 'Formulation' use.
Palladium Hydroxide	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	<u>Formulation</u>	These descriptors		<u>2</u>				Formulation added. PROCs to be added, SUs and ERCs

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
		cannot be reported						to be confirmed.
	Intermediate - Industrial ^{1,2,3}	3	3, 4, 5, 8b, 9, 21	2 , 6a		19		SU3 is a general industrial SU and cannot be reported in IUCLID. Specific SUs required – SU 8, 9? ERC 2 can only be selected for Formulation. Add separate 'Formulation' use.
Palladium Oxide	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	<u>Formulation</u>	These descriptors cannot be reported		<u>2</u>				Formulation added. PROCs to be added, SUs and ERCs to be confirmed.
	Intermediate - Industrial ^{1,2,4}	3	4, 5, 8b, 9	1, 2 , 6a		19		SU3 is a general industrial SU and cannot be reported in IUCLID. Specific SUs required – SU 8, 9? ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such) and

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
								'Formulation' use
	Manufacture of Pd oxide containing catalyst - Industrial	3	1, 2, 4, 5, 8b, 9, 13, 21,	2, 5, 11a	1	3		SU3 is a general industrial SU and cannot be reported in IUCLID. Specific SUs required – SU 8, 9? ERC 11a can only be selected for article service life. Article service life (worker) to be added for this use.
	Use of Pd oxide containing catalyst – Industrial/Professional/Consumer	<i>Implied use</i>						
	Article service life of Pt oxide containing catalysts							
Tetraammine Palladium diacetate	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
	<u>Formulation</u>	These descriptors cannot be reported		<u>2</u>				Formulation added. PROCs to be added, SUs and ERCs to be confirmed.
	Intermediate - Industrial ^{1,2,4}	3 , 8, 9	1, 3, 4, 8b, 9, 15, 22	1, 2 , 6a		19, 21		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such)' and 'Formulation' use
Tetraammine Palladium dichloride	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	Intermediate - Industrial ^{1,2,3,4}	3 , 8, 9, 10	2, 3, 4, 5, 8a, 8b, 9, 15, 19, 26	1, 2 , 6a		14, 19		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such)' and 'Formulation' uses.

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
	Metal Surface Treatment - Industrial	3 , 10, 15	2, 4, 8b, 9, 13, 19, 26, 27b, 0 (Rinsing), 0 (Cleaning)	2 , 4, 5	2, 7	14, 19		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 2 can only be selected for Formulation. Add separate 'Formulation' use.
	Metal Surface Treatment - Professional	3 , 15	8b, 13, 26, 27b, 0 (rinsing)	5		14, 19		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 5 cannot be selected for Professional use. Use descriptor required,
	Article service life of surface treated products							
Tetrammine palladium dihydroxide	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	Intermediate - Industrial ^{1,2}	3 , 9	4, 8b, 9	1 , 6a		19		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for manufacture. Add separate 'Manufacture of the substance (as such)'

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
Tetraammine palladium dinitrate	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	<u>Formulation</u>	These descriptors cannot be reported		<u>2</u>				Formulation added. PROCs to be added, SUs and ERCs to be confirmed.
	Intermediate - Industrial ^{1,2,3,4}	3 , 8, 9	1, 3, 4, 8b, 9, 15, 22	1, 2 , 6a		19. 21		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such)' and 'Formulation' use
Tetrakis(triphosphine) palladium	<u>Manufacture of the substance (as such)</u>	These descriptors cannot be reported		<u>1</u>			These descriptors cannot be reported	Manufacture of the substance added. PROCs to be added, SUs to be confirmed.
	<u>Formulation</u>	These descriptors cannot be reported		<u>2</u>				Formulation added. PROCs to be added, SUs and ERCs to be confirmed.
	Intermediate - Industrial ^{1,2,3}	3 , 9	1, 3, 8b, 9	1, 2 , 6a		20		SU3 is a general industrial SU and cannot be reported

	Use	SU	PROCs	ERCs	AC	PC	Technical function	Proposed change or comment (September 2014)
								in IUCLID. ERC 1 can only be selected for Manufacture, and ERC 2 can only be selected for Formulation. Add separate 'Manufacture of the substance (as such)' and 'Formulation' use
	Use as a catalyst - Industrial	3 , 8, 9, 24	1, 3, 8a, 9, 15	1 , 4, 5		21		SU3 is a general industrial SU and cannot be reported in IUCLID. ERC 1 can only be selected for manufacture. Add separate 'Manufacture of the substance (as such)'

Key:

	Some companies provided a single set of descriptors, but noted both industrial and professional use. Companies were asked to complete separate responses for both professional and industrial use. However, updated questionnaires were not received. Therefore, the PROCs, ERCs and SU codes provided are applied to both categories.
	Article service life appears likely for this use, although use descriptors were not declared.
¹	ECHA has indicated that the following PROC codes are compatible with intermediate uses <u>only</u> if the registrant explains that they apply only to pre or post-transformation steps: <ul style="list-style-type: none"> - PROC 6 Calendering operations - PROC 7 Industrial spraying - PROC 14 Production of preparations or articles by tableting, compression, extrusion, pelletisation

	<ul style="list-style-type: none"> - PROC 19 Hand-mixing with intimate contact and only PPE available - PROC 21 Low energy manipulation of substances bound in materials and/or articles - PROC 24 High (mechanical) energy workup of substances bound in materials and/or articles <p>Additionally the following PROC codes are <u>incompatible</u> with all intermediate uses;</p> <ul style="list-style-type: none"> - PROC 10 Roller application or brushing - PROC 11 Non industrial spraying - PROC 12 Use of blowing agents in manufacture of foam - PROC 13 Treatment of articles by dipping and pouring - PROC 16 Using material as fuel sources, limited exposure to unburned product to be expected - PROC 17 Lubrication at high energy conditions and in partly open process - PROC 18 Greasing at high energy conditions - PROC 20 Heat and pressure transfer fluids in dispersive, professional use but closed systems - PROC 23 Open processing and transfer operations with minerals/metals at elevated temperature - PROC 25 Other hot work operations with metals <p>Where these incompatible PROC codes were reported in the returned questionnaire for Intermediate use, they have been removed.</p>
2	<p>ECHA has indicated the PROCs they consider as incompatible with registration as an intermediate under SCC. They are;</p> <ul style="list-style-type: none"> - PROC 4 Use in batch and other process (synthesis) where opportunity for exposure arises - PROC 5 Mixing or blending in batch processes for formulation of preparations* and articles (multistage and/or significant contact) - PROC 16 Using material as fuel sources, limited exposure to unburned product to be expected - PROC 17 Lubrication at high energy conditions and in partly open process - PROC 23 Open processing and transfer operations with minerals/metals at elevated temperature <p>Additionally the following PROCs are only applicable for registering as an intermediate under SCC with the addition of a clarification statement on how rigorous containment is maintained in Appendix 3:</p> <ul style="list-style-type: none"> - PROC 8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities. - PROC 22 Potentially closed processing operations with minerals/metals at elevated temperature Industrial setting - PROC 24 High (mechanical) energy workup of substances bound in materials and/or articles - PROC 26 Handling of solid inorganic substances at ambient temperature - PROC 27a Production of metal powders (hot processes) - PROC 27b Production of metal powders (wet processes) <p>We have not been provided with information on whether an identified intermediate use is being registered under SCC or not. Therefore, companies</p>

	<p>registering compounds as having an intermediate use under SCC should ensure that only acceptable PROC codes have been assigned and that appropriate justification is included in their dossier.</p>
3	<p>ECHA has indicated that the following ERC codes are <u>incompatible</u> with intermediate uses:</p> <ul style="list-style-type: none"> - ERC 3 Formulation in materials - ERC 4 Industrial use of processing aids in processes and products, not becoming part of articles - ERC 5 Industrial use resulting in inclusion into or onto a matrix - ERC 6b Industrial use of reactive processing aids - ERC 6c Industrial use of monomers for manufacture of thermo-plastics - ERC 7 Industrial use of substances in closed systems - ERC 8a Wide dispersive indoor use of processing aids in open systems - ERC 8b Wide dispersive indoor use of reactive substances in open systems - ERC 8c Wide dispersive indoor use resulting in inclusion into or onto a matrix - ERC 8d Wide dispersive outdoor use of processing aids in open systems - ERC 8e Wide dispersive outdoor use of reactive substance in open systems - ERC 8f Wide dispersive outdoor use resulting in inclusion into or onto a matrix - ERC 9a Wide dispersive indoor use of substances in closed systems - ERC 9b Wide dispersive outdoor use of substances in closed systems - ERC 10a Wide dispersive outdoor use of long-life articles and materials with low release - ERC 10b Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing) - ERC 11a Wide dispersive indoor use of long-life articles and materials with low release - ERC 11b Wide dispersive indoor use of long-life articles and materials with high or intended release (including abrasive processing) - ERC 12a Industrial processing of articles with abrasive techniques (low release) - ERC 12b Industrial processing of articles with abrasive techniques (high release) <p>Where these incompatible ERC codes were reported in the returned questionnaire for Intermediate use they have been removed.</p>
4	<p>The following SU codes have been deemed <u>acceptable</u> by ECHA for intermediate uses;</p> <ul style="list-style-type: none"> - SU 9 Manufacture of fine chemicals - SU 10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys) - SU 14 Manufacture of basic metals, including alloys <p>SU 3 Industrial uses is now obsolete in IUCLID, as this SU is implicit when reporting an industrial use. However, it can remain in (non-IUCLID) listings to identify the main user group (and can be consistent with intermediate status).</p>

In addition, Eurométaux will discuss with ECHA whether the following SU codes may also be consistent with intermediate uses;

- SU 8 Manufacture of bulk, large scale chemicals (including petroleum products)
- SU 13 Manufacture of other non-metallic mineral products, e.g. plasters, cement

Furthermore, it is recommended to replace SU 15 by SU 14 where possible for intermediate uses.

Where other incompatible SU codes have been reported in the returned questionnaire for intermediate use they have been removed.