

samaterials.com

SAFETY DATA SHEET

Version 3.0 Revision Date 09/04/2017

1. P	RODUCT AND COMPANY IDE	NTIFICATION				· · ·			· · ·	
1.1	Product identifiers									
`*.	Product name Brand	Samarium(I SAM	II) oxid	e , ,		14				
۰.	CAS-No.	: 12060-58-1	1. 1.		·	÷.,		·	1.	
2	Relevant identified uses of the	substance or mixtu	ire and us	ses advised	against					
	Identified uses	: Laboratory chem	icals, Syn	thesis of sub	stances					
3	Details of the supplier of the s	afety data sheet	11	5	;**	· · .	1	111	11	
۰.	Company	Stanford Advan Materials 23661 Birtcher Lake Forest, CA	Dr.			1.			÷.,	
		USA	192030		·	14	100	1	$\sim 10^{-1}$	
	Telephone Fax	: +1 (949) 407-89 : +1 (949) 812-66								
Ļ	Emergency telephone number	·		·			·			
	Emergency Phone #	: +1 (949) 407-89	04							
2. H	AZARDS IDENTIFICATION Classification of the substan	ce or mixture				14. 1				
	Not a hazardous substance or GHS Label elements, including Not a hazardous substance or	precautionary state	ements		1 	14. 1		1 		
	Hazards not otherwise classifi			GHS - none	: • •	··.	5	:	11. 1	
3. C	OMPOSITION/INFORMATION	ON INGREDIENTS								
•	Substances Molecular weight CAS-No.	: 348.70 g/mol : 12060-58-1				· · .		. * *	1.	
	EC-No.	: 235-043-6	14	11	1	1.	1.1	1.1	1.	
	No components need to be dis	closed according to	the applic	cable regula	tions.					
•••	$(1,1,2,\dots,2^{m-1}) \in \mathcal{O}_{1}$	1	· · ·	1	; • •	··.	1	: • •	· · .	• .
4. F	IRST AID MEASURES									
ľ	Description of first aid measured	ures				1			1.	
· .	If inhaled If breathed in, move person int	o fresh air. If not bre	athing, gi	ve artificial r	espiratio	on.		5		. '
	In case of skin contact Wash off with soap and plenty	of water.								
		·		·			·		Page 1 of	6

· · .	In case of eye contact Flush eyes with water as a preca	aution.		14. 19		. 11	14		. 11	14. 14.	
1. 1.	If swallowed Never give anything by mouth to		cious p	oerson. F	Rinse mouth	n with wat	er.		1	14. 14.	
4.2	Most important symptoms and e The most important known symp					labelling	(see sed	ction 2.2) a	Ind/or in s	ection 1	1
1.3	Indication of any immediate m No data available	edical atte	ntion a	and spe	cial treatmo	ent neede	ed	<u>`</u>			<u>.</u>
5. F	IREFIGHTING MEASURES										
.1 Ex	tinguishing media										
1.	Suitable extinguishing media Use water spray, alcohol-resista	nt foam, dry	y chem	ical or c	arbon dioxid	de.	· .	. '		÷.	. '
5.2	Special hazards arising from the No data available	he substar		mixture	1			1			·
5.3	Advice for firefighters Wear self-contained breathing a	pparatus fo	or firefig	hting if r	necessary.						
5.4	Further information No data available									1.	
6. A	CCIDENTAL RELEASE MEASU	IRES		· .		·	· · · ·			· · ·	
.1	Personal precautions, protecti Avoid breathing vapours, mist or For personal protection see sect	gas.	ent an	d emerg	jency proc	edures					
6.2	Environmental precautions Do not let product enter drains.			11.	1 		· · · .	1		· · .	· · · ·
.3	Methods and materials for con Keep in suitable, closed contained			aning u	р		1.			14	
5.4	Reference to other sections For disposal see section 13.		·	1. 1.		1	1. 1.		÷	1. 1.	
7. H	ANDLING AND STORAGE										
'.1	For precautions see section 2.2.	1	; • •		1	;**	••.	1	:	Pr	ecautio
7.2	Conditions for safe storage, in Keep container tightly closed in a and kept upright to prevent leaka	a dry and w				iners whic	ch are op	pened mus	t be caref	ully rese	aled
	Keep in a dry place.										
.3	Specific end use(s) Apart from the uses mentioned in				cific uses a			. '		1.	
8. E	XPOSURE CONTROLS/PERSO	NAL									
PRO	DTECTION 8.1 Control parameter	ers	:	· · .	1	111	· · .	1	111	11	1.1
• • •	Components with workplace Contains no substances with c				t values.		·			1.	
8.2	Exposure controls										
	Appropriate engineering cor	ntrols	·								

Page 2 of 6

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties Appearance Form: powder a) b) Odour No data available Odour Threshold No data available c) d) bН No data available Melting point/freezing No data available e) point Initial boiling point and f) No data available boiling range Flash point No data available g) h) Evaporation rate No data available Flammability (solid, gas) No data available i) Upper/lower No data available j) flammability or explosive limits k) Vapour pressure No data available Vapour density No data available 1) · · · 8.35 g/mL at 25 °C (77 °F) m) Relative density n) Water solubility No data available Partition coefficient: n-No data available O) octanol/water Auto-ignition No data available p) temperature q) Decomposition No data available temperature Viscosity No data available r) s) Explosive properties No data available No data available Oxidizing properties t)

9.2	Other safety No data ava		on					. **				14. 1	
10.	STABILITY /	AND REAC	TIVITY			· · ·		·	· · ·				
10.1	Reactivity No data ava	ilable											
10.2	Chemical st Stable unde			rage condit		11	1			5		· · .	÷.,
10.3	Possibility of No data ava		is reaction	ons								1. 1.	
10.4	Conditions to No data ava				1			·	· .		·	· .	
10.5	Incompatible Strong oxidi						,						
10.6	Hazardous Hazardous of In the event	decomposit	ion prod	ucts formed	d under fi	re condit	ions San	narium O	xides	1	; · ·	м. Т	·
11.	TOXICOLOG	SICAL INFO	ORMATI	ON		1			1.			1	
11.	1 Informatio	on on toxic	ological	effects									
÷.,	Acute to No data ava			$\mathcal{A}^{(i)}$	1 1			1			1	14. 14.	
	Inhalation: N	No data ava	ilable										
	Dermal: No	data availa	ble										
· · .	No data ava	ilable		1	1.1.1		1		· · .	1.1		11	
	Skin corros No data ava		on									·	
	Serious eye No data ava		eye irrita	ation									
· .	Respiratory No data ava		ensitisat	lion						. '		1.	
	Germ cell n No data ava		ty	- 111			5			1			·
	Carcinog	enicity											
÷.,	IARC:			f this produ sible or con					ual to 0.	1% is identi	fied	1. 1.	
÷.,	ACGIH:			this produce the produce of the prod				han or eq	ual to 0.	1% is identi	fied as	1.	
	NTP:			f this produce pated carci			s greater t	han or eq	ual to 0.	1% is identi	fied as		
· · .	OSHA:			f this produce the produce of the pr				han or eq	ual to 0.	1% is identi	fied as	· · .	÷.,
	Reproducti		,										
14	No data ava		14		19	14			14			14	
	Specific tar No data ava	get organ	toxicity	- single ex	posure			5	·		·	1.	
	Specific tar No data ava	get organ	toxicity	- repeated	exposu	re							
· · .			· · .	5		11. 1	1	:	· · .	1		Page 4	of 6

Aspiration hazard No data available

Additional Information RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12.	ECOLOGICAL INFORMATION		111	· · ·	·	; · ·	···.	·	1.1.1		· · · ·
12.1	Toxicity No data available			· .							
12.2	2 Persistence and degradabil No data available	ity	,	,		,					
2.3	Bioaccumulative potential No data available		1			1 	1.		1	1.	
2.4	Mobility in soil No data available	·			1			·			
2.5	Results of PBT and vPvB as PBT/vPvB assessment not available.	sessment					d/not c				
2.6	Other adverse effects			14			14			14	
	No data available										
13.	DISPOSAL CONSIDERATIONS		·	· · ·		·	· · ·			· · ·	
3.1 V	Vaste treatment methods										
•••	Product Offer surplus and non-recyc	lable solut	ions to a	licensed	disposal	company.	· · .	1		· · .	·
· .	Contaminated packaging Dispose of as unused produ	ict.		· .			· .			· .	
14.	TRANSPORT INFORMATION					,					
۰.	DOT (US) Not dangerous goods		1	1. 1.		1	1.		5		
	IMDG Not dangerous goods										
•••		1 	111	· · .	1.1	: * *	· · .	1.1	111	11	·
÷.,	IATA Not dangerous goods						1.			1. 1.	
15.	REGULATORY INFORMATIO	N									
÷.,	SARA 302 Components No chemicals in this material a	are subject	to the re	porting re	equireme	ents of SARA	Title III	, Section 30)2.		
	SARA 313 Components This material does not contain (De Minimis) reporting levels e						ers tha	at exceed th	e thresho	ld	·
	SARA 311/312 Hazards		, ., .,	t nuộ m							
۰.	No SARA Hazards						1.			1.	
	Massachusetts Right To Kno No components are subject to			Right to	Know A	ct.					
۰.	Pennsylvania Right To Know			_		1	14	1.1	1	1. 1.	
	Samarium (III) oxide					CAS-No. 12060-58-1		Revision	Date		
	× ,										

Page 5 of 6

	New Jersey R	ight To	Know	Compone	ents			CAS-No.		Revisior	n Date	1	
	Samarium (I	II) oxide	· .		·			12060-58-1			. 2010	· .	
· ,	California Pro This product de other reproduce	oes not	contair		nicals knov	vn to Sta	te of Ca	lifornia to cau	se can	cer, birth d	efects, or a	any	
· · .	1	: • •	с. С.	1	111	· · .	÷		· · .	1	111	•••	·
16.	OTHER INFOR	MATIO	N										
۰.	HMIS Rating Health hazar Chronic Hea	alth Haza	ard:	0				. **	1.				
۰,	Flammability Physical Ha		11	0 0	1	14	. 1	1	÷.,		1	11	. '
•••.	NFPA Rating Health haza Fire Hazard: Reactivity Ha		•••	0 0 0		··.	5		··.	1		··.	••••
•		al safety laterials	data sł provid	es no warr	anties, eith	ner expre		ion, consider plied, and as					
· .		1	1.		1	14		1			1	14. 1	.'
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· .			1. 1.			14			1. 1.		11		
		·	1.		1			·	1. 1.	. 1	1	1. 1.	
•••.	1		· · .	1	:**	· · .	·	111	· · .	1	111		·
			14. 14.						1. 1.				
۰.	19 ¹	5	1. 1.	11	5	14	d.	5	1. 1.		5	14. 14.	
•••.	1		· · .	1	:**	· · .	1	111	··	1	:**	· · .	·
' .			14. 14.			14. 14.			1. 1.			Page 6	of 6
۰.	2	5	Т.,	21	5	14	d.	1	14		5		
	5			1			·			·			