

## SAFETY DATA SHEET

		111			;**	-			Date	Accesse	d: 25/08	/2023
, i	bduct Name: Zinc Phosphate S #: 7779-90-0 levant identified uses of the substance: Scientific research and development pplier details: nford Advanced Materials nail: sales@samaterials.com : (949) 407-8904 dress: 23661 Birtcher Dr., Lake Forest, CA 92630 U.S.A. ECTION 2. HAZARDS IDENTIFICATION ssification of the substance or mixture ssification of the substance or mixture		d: 15/01	/2023								
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SEC	TION	1. ID	ENT	IFICA								
					1.1.1		1 1 - 1		}		: * *	
CAS #	¢: 7779-90	<b>0-0</b>	. :					,÷			1	.1
Releva	ant ident	ified us	ses of	the subs	tance: S	Scienti	fic resea	rch and	devel	opment		.:
Suppl	ECTION 1. IDENTIFICATION oduct Name: Zinc Phosphate AS #: 7779-90-0 levant identified uses of the substance: Scientific research and development pplier details: anford Advanced Materials mail: sales@samaterials.com I: (949) 407-8904 dress: 23661 Birtcher Dr., Lake Forest, CA 92630 U.S.A. ECTION 2. HAZARDS IDENTIFICATION assification of the substance or mixture assification of the substance or mixture											
Stanfo E-mail	ord Advan I: sales@:	ced Ma samate	aterials rials.co	em (	:**	}	н 1 - 1	111	}	н 1 - 1		:
Tel: (9	49) 407-8	390,4	.:			. :			.:			.1
Addre												
				1 1 1		.:						
SEC	TION	2. H	AZA	RDS I	DEN	<b>FIFIC</b>	ATIO	N		н 1 - 1		
Classi	<b>ECTION 1. IDENTIFICATION</b> roduct Name: Zinc Phosphate         AS #: 7779-90-0         elevant identified uses of the substance: Scientific research and development         upplier details:         tanford Advanced Materials         -mail: sales@samaterials.com         el: (949) 407-8904         ddress: 23661 Birtcher Dr., Lake Forest, CA 92630 U.S.A.         ECTION 2. HAZARDS IDENTIFICATION         lassification of the substance or mixture		.1	.:								
Classi		ccording	-	gulation	(EC) No	1272/2	2008			н н 1		.:

The substance is not classified as hazardous to health or the environment according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

N; Dangerous for the environment

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human and environment:

N/A

						1 1 1					
Hazards not otherwise	classif	ied	.:			.)÷			ji.	.1	
No data available											
Label elements								1			
Labelling according to F											
N/A					1 I		1				
Hazard pictograms		1	. :						1		
N/A	1			1			1				
Signal word		,		ï	ı		I	,			
N/A			: • •								
Hazard statementsN/A											
WHMIS classification											
Not controlled	.:	1 - 1 1			н н н			н н н			
Classification system											
HMIS ratings (scale 0-4	)	н 1 — 1	111			111			111		:
(Hazardous Materials Id	dentific	ation Sys					.1			.1	:
HEALTH	1	r.		1	ı	1	I	1	1		
FIRE	.:	1 I			1 I			н н 1			
REACTIVITY											
1		н 1 - 1	111		н н н			н 1. т.			
0 ,: ; 1		:									
Health (acute effects) =	1	1 - 1 1									
Flammability = 0											
Physical Hazard = 1					н 1 — 1			н 1 — 1	111	1	
Other hazards	.:	}	.:			.)÷				.1	
Results of PBT and vPv				1							
PBT: N/A					1			1		. '	
vPvB: N/A			;••		н 1 - 1	111	;	н 1 - 1	111	:	
		:	.:		:	,÷		:	,i	.:	
1 I I				1							

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	н н Н			н н Н			1 - 1 1		,÷
CAS No. / Substance Name:									
7779-90-0 Zinc phosphate	н 1 — 1			н 1 — 1			н 1 - 1		
Identification number(s):			1		;		:		
EC number: 231-944-3	·		,			,		,	ı
Index number: 030-011-00-6	н н н								
		111			:	;			;
<b>SECTION 4. FIRST</b>		MEAS	URE	ES				. 1	
Description of first aid measur	es					.:			.:
Supply patient with fresh air. I	f not bre	athing, pi	rovide	artificial re	spiratio	on. Kee	p patient	warm.	
Seek immediate medical advid	ce.								
In case of skin contact:			.:		.1				
Immediately wash with soap a	ind wate	er; rinse th	noroug	hly,					
Seek immediate medical advid	ce.			ı					,
In case of eye contact:	1								
Rinse opened eye for several	minutes	under ru	nning						
If swallowed:									
Seek medical treatment.				н н Н			н н н		j:
Information for doctor									
Most important symptoms and	l effects	, both acu	ute and	delayed					
No data available	:	:	1				:		
Indication of any immediate m									
No data available			.:	1 - 1 1	1.1.1		1 - 1 1		1

## SECTION 5. FIREFIGHTING MEASURES

					1					
Extinguishing media			.:					.:		
Suitable extinguishing ager	nts									
Product is not flammable. U	Jse fire-figh	iting meas	sures t	hat suit t	he surro	unding	fire.			
Special hazards arising from	m the subst	tance or n	nixture							
If this product is involved in	a fire, the	following	can be	release	d:					
Advice for firefighters			. :	1	.1					1
Protective equipment:			:							
Wear self-contained respira	ator.			1						
Wear fully protective imper	vious suit.		1		111					8
		.:		;	.:		:	.:	.:	
<b>SECTION 6. ACC</b>		AL RE	LEA	SE M	EASL	JRE	S			
	41									
Personal precautions, prote						5				
Use personal protective eq		eep unpro	lecteo	persons	s away.					
Ensure adequate ventilatio			. :	1	.1					
Environmental precautions		the provi		at with an	t official	n o risoit				
Do not allow material to be										
Do not allow product to ent				, or other			- -			
Do not allow material to pe		-							1	
Methods and materials for	containmer	it and clea	anup:		.1					
Pick up mechanically.			. :						.:	
Prevention of secondary ha										
No special measures requi										
Reference to other sections										
See Section 7 for information	on on safe	handling		-						
See Section 8 for information	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		ction e	quipmer	nt.					
		-								
See Section 13 for disposa	I informatio	n.								

## SECTION 7. HANDLING AND STORAGE

Handling										
	andling									
Keep container tightly s	sealed.			1 I						
Store in cool, dry place	in tightly close	d contain	ers.							
Ensure good ventilation	n at the workpla	ace.								
Information about prote	ection against e	explosions	and fi	es:				.1		
The product is not flam	imable		1							
Conditions for safe stor	rage, including	any incon	npatibil	ities						
Requirements to be me	et by storeroom	is and rec	eptacle	es:						
No special requiremen	ts.		,			1				
Information about stora	age in one com	mon stora	ige faci	lity:				.1		
Not required.				1 - 1 1						
Further information abo	out storage con	ditions:								
Keep container tightly	sealed.							: * *		
Store in cool, dry condi	tions in well-se									
Specific end use(s)		. '	,	;	. '	.'	;	. '	.'	1
No data available									.1	
				1				; • •	;	
SECTION 8. EX	<b>XPOSURE</b>	E CON	TRO	LS/PE	ERSC	NAL				
PROTECTION										
Additional information a	about design of	technica	l syster	ns:		.1	н н н		.1	
Properly operating che	mical fume hoc	od designe	ed for h	azardous	s chemi	cals an	d having	an avera	age	
face velocity of at least	100 feet per m	ninute.								
Control parameters	.1				.÷		1	.: .:		
Components with limit	values that req	uire moni	toring a	at the wor	kplace:	Not red	quired.			
Additional information:	Precautions for safe handling (eep container tightly sealed. Buter in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace. Information about protection against explosions and fires: The product is not flammable Conditions for safe storage, including any incompatibilities Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Not required. Entert information about storage conditions: Geep container tightly sealed. Buter in cool, dry conditions in well-sealed containers. Specific end use(s) No data available  SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION Red Exposure for the control systems: Property operating chemical fume hood designed for hazardous chemicals and having an average ace velocity of at least 100 feet per minute. Components with limit values that require monitoring at the workplace: Not required.  Maditional information: No data									
Exposure controls			:						1	
Personal protective eq			,							
Follow typical protectiv	e and hygienic	practices	for har	ndling che	emicals.		÷	.1		

Keep away from	foodst	uffs, be	everages	and feed	d. <sub>, ;</sub>			. :		.:		
Remove all soile	ed and	contam	inated cl	othing in	nmedia	ately.						
Wash hands bef	ore bre	eaks an	d at the	end of wo	ork.			. :				
Maintain an ergo	onomic	ally app	oropriate	working	enviro	nment.						
Breathing equip	ment:						: • •			111		
Use suitable res	pirator	when h	nigh cond	entratior	ns are	present.	.:					
Protection of har	nds:											
Impervious glove	es	. '	t.			,		1				
Inspect gloves p	rior to	use.			:							
Suitability of glov	ves sho	ould be	determir									
by	.:	1	1		.1	1		.:				
manufacturer.			1 - 1									
Eye protection: S					,							
	Drotor	stivo wo	ork clothi	na.								
Body protection:	Protec			<b>J</b>			1					
Body protection:	Protec			J		н н - н	1.1.1	;				
								.1				
SECTION					CHE	MICAL		.1		.:.		
	9. Pł	HYSI	CAL		. 1	1 - 1 1		.1				
SECTION	9. Pł	<b>HYSI</b> nysical a	CAL /	AND (	perties	1 - 1 1	. PR(	OPE	RTIES			
SECTION	9. Ph	<b>HYSI</b> hysical a	CAL /	AND ( nical pro	perties	5	- <b>PR(</b>	<b>OPE</b> I	RTIES		:	
<b>SECTION</b> Information on b Appearance:	9. Ph	<b>HYSI</b> hysical a	CAL /	AND ( nical pro	perties	3	- <b>PR(</b>	<b>OPE</b> I	RTIES		:	
<b>SECTION</b> Information on b Appearance: Form: Powder	9. Pl	<b>HYSI</b> nysical a	CAL /	AND (	perties	  	- <b>PR</b> (		RTIES		:	:
<b>SECTION</b> Information on b Appearance: Form: Powder Color: White	pasic pr	<b>HYSI</b> nysical a	CAL A	AND (	perties	  	- <b>PR</b> (		RTIES		:	:
<b>SECTION</b> Information on b Appearance: Form: Powder Color: White Odor: Odorless	9. Ph pasic ph	<b>HYSI</b> nysical a a availa	CAL /	nical pro	perties	5	. <b>PR(</b>			···· .: 		
<b>SECTION</b> Information on b Appearance: Form: Powder Color: White Odor: Odorless Odor threshold:	9. Ph pasic ph	<b>HYSI</b> nysical a	CAL /	anical pro	perties		. <b>PR(</b> . <b>P</b> R( 					
<b>SECTION</b> Information on b Appearance: Form: Powder Color: White Odor: Odorless Odor threshold: pH: N/A Melting point/Me Boiling point/Boi	9. Ph pasic ph No dat	<b>HYSI</b> nysical a a availa ange: N	<b>CAL</b> and cher able.	AND ( nical prop vailable ailable	perties							
<b>SECTION</b> Information on b Appearance: Form: Powder Color: White Odor: Odorless Odor threshold: pH: N/A Melting point/Me	9. Ph pasic ph No dat	<b>HYSI</b> nysical a a availa ange: N	<b>CAL</b> and cher able.	AND ( nical prop vailable ailable	perties							
SECTION Information on b Appearance: Form: Powder Color: White Odor: Odorless Odor threshold: pH: N/A Melting point/Me Boiling point/Me Sublimation tem Flash point: N/A	9. Ph pasic ph No dat elting ra ling rar peratur	<b>HYSI</b> nysical a ange: N nge: No re / star	CAL A and cher able. o data av o data av o data av	AND ( nical prop vailable ailable ta availat	perties							
SECTION Information on b Appearance: Form: Powder Color: White Odor: Odorless Odor threshold: pH: N/A Melting point/Me Boiling point/Boi Sublimation tem	9. Ph pasic ph No dat elting ra ling rar peratur	<b>HYSI</b> nysical a ange: N nge: No re / star	CAL A and cher able. o data av o data av o data av	AND ( nical prop vailable ailable ta availat	perties							

		8			1 1 1					
Decomposition temperatu	ire: No data a	available	. :			.:				
Autoignition: No data avai										
Danger of explosion:				1 1 1						
Product does not present										
Explosion limits:				1						
Lower: No data available						.1				:
Upper: No data available			1			1				
Vapor pressure: N/A	· · ·		. '	1		. '	1		. '	
Density at 20 °C (68 °F): 3	3.75 g/cm	: **	;	:	111	:	1.	111		
(31.294 lbs/gal)		.1	.1		, i	.1	1	.÷	.1	
Relative density: No data	available.		:			:			:	
Vapor density: N/AEvapor	ration rate: N		ı	1		ı	ı			
Solubility in Water (H	1				111					
2			,						,	
O): Insoluble			.1		.1	. 1				
Partition coefficient (n-oct	anol/water):	No data a	availat	ole.		.1	1 - 1 1		.1	
Viscosity:										
Dynamic: N/A										
Kinematic: N/A Other information	.: :	.:	.:	:		,÷		ji.	.:	:
No data available			. 1	н н н		, i			.1	
					1 1 1 1					
SECTION 10. ST	ABILITY		RE		/ITY	;				
Reactivity										
No data available			. 1	1 - 1 1		.1				
Chemical stability Stable under recommend	ed storage c			:	111	÷				
Thermal decomposition /					,÷	.1		.÷	.1	

Possibility of hazardous re	eacti	ons							
No dangerous reactions k	now	n	 .1	н н Н	 ,÷	н н Н		.1	
Conditions to avoid									
No data available						1 1 - 1	111		
Incompatible materials:	;		.:		.:	1	j.	, i	
No data available			 :						
Hazardous decomposition			,	ı		,			,
Phosphorus oxides (e.g. F	20	5)			 1			1	
Metal oxide fume			,		,				
<u></u>	1							. :	

## SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects	: • •					н 1. т.	: * *	
Acute toxicity: No effects known.								
LD/LC50 values that are relevant for class	ssificatio	on: No	data	. 1				. '
Skin irritation or corrosion: May cause in	ritation		1 - 1 1			1 I		,÷
Eye irritation or corrosion: Powder: irritat	nt effect							
Sensitization: No sensitizing effects know	wn.					н 1 - 1	111	-
Germ cell mutagenicity: No effects know	'n.	. :					.:	.:
Carcinogenicity:								
No classification data on carcinogenic pr	ropertie	s of this	material i	is availa	able fro	m the EPA	A, IARC	,
NTP, OSHA or ACGIH.								
Reproductive toxicity: No effects known.						1 1 1		
Specific target organ system toxicity - re	peated	exposu	re: No effe	ects kno	wn.			.1
Specific target organ system toxicity - sin	ngle exp	osure:	No effects	s knowr	1.			
Aspiration hazard: No effects known.			1					
Subacute to chronic toxicity: No effects I	known.				:	,		
Additional toxicological information:		,			1			
To the best of our knowledge the acute a	and chro	onic tox	cicity of this	s substa	ance is	not fully k	nown.	1

			:		1				:
SECTION 12. ECOL	OGIC	AL IN	FOI	RMAT	IONT	oxic	ity	.1	.1
Aquatic toxicity:	н н н			н н н		.1	н н Н		.1
No data available									
Persistence and degradability	н 1 1.						н 1. т.	1.1.1	
No data available			.:		.:			.:	.1
Bioaccumulative potential No data available			.:			.:	н н н		.:
Mobility in soil No data available		;**	:		;		1 1 1		
Ecotoxical effects:		.1	.:		.:		-	.:	.1
Remark:			.:						.1
Very toxic for aquatic organism	IS								
Additional ecological informatio	n:			н 1 - 1	111			111	
Do not allow material to be rele	1								
Do not allow product to reach g	-				-	-			
Danger to drinking water if even	n small o	quantities	leak i	nto the g	round.		1		
Also poisonous for fish and pla									
May cause long lasting harmful	l effects	to aquatio	c life.						
Avoid transfer into the environn	nent.				.1		-	.1	
Very toxic for aquatic organism									
Results of PBT and vPvB asse	ssment		· '			. '			
PBT: N/A									
vPvB: N/A				1 - 1			- 		
Other adverse effects	-		. :				-		
No data available									

#### SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

			1			1			1		
Recommendation			. :			.1	. :	1	.:	.:	
Consult official regul	ations to	oncuro n	ropor di	spocal							
Uncleaned packagin	igs:	н н н					.:			.1	
Recommendation:											
Disposal must be ma	ade accoi	ding to o	fficial re	gulatior	าร.						
		:	,								
SECTION 14.	TRAI	NSPO		IFOF	RMAT	ION	.:			,÷	
UN-Number											
DOT, IMDG, IATA											
UN3077			.1	. :			.:		.1		
UN proper shipping	name	н н н			· · ·		.1			.1	
DOT											
Environmentally haz	ardous s	ubstance	s, solid,	n.o.s. (	Zinc pho	sphate)					
IMDG, IATA				,				1			
ENVIRONMENTALL									. '	. '	
Transport hazard cla	ass(es)				н н н			н н н			
DOT, IMDG											
Class		н 1 — 1				: • •			: * *		
9 Miscellaneous dan	igerous s	ubstance	s and ar	ticles.			.:			.:	
Label											
9Class	.1										
9 (M7) Miscellaneou											
Label											
9,:			.1				.1		.1	1	
IATA Class	.:			.:			.:			,ł	
9 Miscellaneous dan	igerous s	ubstance	s and ar	ticles.							
Label		н н н			н 1. т.			н н н			
9, *		1	.:			.:	.:		.:	,i	

			1			1					
Packing group			.1	.:		.1	.1			.:	
DOT, IMDG, IATA											
		1 I		. 1	1						
Environmental hazard	s:										
Special marking (ADR	2):				н 1 — 1						
Symbol (fish and tree)			.1	. I		.1		1			
Special marking (IATA	<b>()</b> :						;			1	
Symbol (fish and tree)		ı		I	ı		I				
Special precautions for	or user			1			:			1	
Warning: Miscellaneo	us dang									ı	
Transport in bulk acco	ording to	Annex I	l of MAR	RPOL7	3/78 and	the IBC	Code		.:		
N/A		н н н		. 1	н н 1						
Transport/Additional in	nformati	ion:									
DOT			: • •						111		
Marine Pollutant (DOT											
No											
UN "Model Regulation	)":     :	н н н			н н н			н н Н		.:	
UN3077, Environmen	tally haz	zardous s	substanc	es, sol	id, n.o.s.	(Zinc ph	osphat	e), 9, III			

# SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture											
National regulations											
All components of this product are listed in the U.S. Environmental Protection Agency Toxic											
Substances Control Act Chemical substance Inventory											
SARA Section 313 (specific toxic chemical listings)											
7779-90-0 Zinc phosphate	1		1								
California Proposition 65			:								
Prop 65 - Chemicals known to cause cancer											
Substance is not listed.	1		.1	}							

Prop 65 - Developmental toxicity	. :				.:		.:	.:				
Substance is not listed.												
Prop 65 - Developmental toxicity, female												
Substance is not listed.												
Prop 65 - Developmental toxicity, male	1 1 1											
Substance is not listed.					.:		.1					
Information about limitation of use:												
For use only by technically qualified indivi			1					1				
Other regulations, limitations and prohibit	ive reg	ulations	;		1		;••	1				
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.												
Substance is not listed.	. :					-						
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No												
1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.												
Substance is not listed Annex XIV of the I	REACH	Regul	ations (rec	quiring	Authori	sation for	use)	1				
Substance is not listed.												
REACH - Pre-registered substances												
Substance is listed.	1.1.1		н н н		.:							
Chemical safety assessment:												
A Chemical Safety Assessment has not b	een ca	rried ou	it.				: • •	1				

#### **SECTION 16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.