

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Name: Lanthanum Bromide

CAS #: 13536-79-3

Relevant identified uses of the substance: Scientific research and development

Supplier details:

Stanford Advanced Materials

E-mail: sales@samaterials.com

Tel: (949) 407-8904

Address: 23661 Birtcher Dr., Lake Forest, CA 92630 U.S.A.

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)

GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

Hazards not otherwise classified

No information known.

Label elements

GHS label elements

The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

Hazard pictograms GHS07 Signal word Warning Hazard statements H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification D2B - Toxic material causing other toxic effects Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1 Flammability = 0 Physical Hazard = 0 Other hazards Results of PBT and vPvB assessment

Not applicable. vPvB: Not applicable.		: ' '			111			111		 : ' '	
	Not applicable.										
Not applicable.			;	• • •		: '	٠٠.	. :	;		: '
	Not applicable.										

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Substances

CAS# Description:

13536-79-3 Lanthanum (III) bromide

Identification number(s):

EC number:

PBT:

236-896-7

SECTION 4. FIRST AID MEASURES

Description of first aid measures

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

After skin contact

Immediately wash with water and soap and rinse thoroughly

Seek immediate medical advice.

After eye contact

Rinse opened eye for several minutes under

running water. Then consult a doctor. After swallowing

Seek medical treatment.

Information for doctor

Most important symptoms and effects, both acute and delayed

No further relevant information available.

No further relevant information available.

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents

Product is not flammable. Use fire-fighting measures that suit the surrounding fire.

Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:

Metal oxide fume

Hydrogen bromide (HBr)

Advice for firefighters

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions:

Do not allow material to be released to the environment without proper governmental permits.

Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Prevention of secondary hazards:

No special measures required.

Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7. HANDLING AND STORAGE

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Precautions for safe handling

Keep container tightly sealed.

Store 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

Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Store away from water/moisture.

Further information about storage conditions:

This product is hygroscopic.

Store under dry inert gas.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Protect from humidity and water.

Specific end use(s)

No further relevant information available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. Control parameters Components with limit values that require monitoring at the workplace: Not required. Additional information: No data Exposure controls Personal protective equipment General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands: Impervious gloves Check protective gloves prior to each use for their proper condition. The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. Eye protection: Safety glasses Body protection: Protective work clothing

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

General Information

Appearance:

Form: Lump

Color: WhiteOdor: Not determined

Odor threshold: Not determined.

pH-value: Not applicable.

Change in condition

Melting point/Melting range: 789 °C (1452 °F)

Boiling point/Boiling range: 1480 °C (2696 °F)

Sublimation temperature / start: Not determined

Flash point: Not applicable

Flammability (solid, gaseous)

Not determined.

Ignition temperature: Not determined

Decomposition temperature: Not determined

Auto igniting: Not determined.

Danger of explosion:

Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined

Upper: Not determined

Vapor pressure: Not applicable.

Density at 20 °C (68 °F):

5.07 g/cmÂ³ (42.309 lbs/gal)

Relative density

Not determined.

Vapor density

Not applicable.				· ;	,				1	
Evaporation rate										
Not applicable.		: '	**,		; '	**,		: '	 	
Solubility in / Mis										
Water: Soluble	: ' '			!''	1.,		!''	'	 111	
Partition coeffici	ent; (n-	octano	l/water):	·:	. * *		·:		1	
Not determined.	• :	:	٠.	• :	:	٠.		:	 • :	
dynamic: Not applicable.	:	4	* :	:"	٠	* :		4	:''	
kinematic:	·:			·:			· ;	. * *	 1:	
Not applicable.		;'			;				 . :	
Other informatio	n									
No further releva	ant info	ormatio	n availab	le. ;··	1			٠	 111	
	·:			1			·;		 ·:	
SECTION	10. 9	STAF	BILITY	AND	RE	ACTI\	/ITY			

Reactivity

No information known.

Chemical stability

Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions

No dangerous reactions known

Conditions to avoid

No further relevant information available.

Incompatible materials:

Oxidizing agentsWater/moisture

Hazardous decomposition products:

No effects known.

Subacute to chronic toxicity:

SECTION 11. TO	XICOL	OGICA	LIN	FORI	MATIC	ON.	• :	:''
Information on toxicologic	al effects	1	. * *	. :	·:	. ' '		1:
Acute toxicity: No effects known.	ri es	• •	i'	٠٠,	• :	;'		*:
LD/LC50 values that are r	elevant for	classificati	on:					: ' '
No data								
Skin irritation or corrosion		1	. ' '		1	. ' '		1
Causes skin irritation.	, ,		;			;		
Eye irritation or corrosion:								
Causes serious eye irritati	ion.	: ' '	1		: "	٠		: ' '
Sensitization:								
No sensitizing effects kno	wn.		, ' '			, ' '		
Germ cell mutagenicity:			; '	•		;		
No effects known.								
Carcinogenicity:		;**			: ' '	'		: ' '
No classification data on c	carcinogeni	c propertie	s of thi	s materi	al is avai	lable fr	om the E	PA, IARC
NTP, OSHA or ACGIH.			,					
Reproductive toxicity:			; '			;		
No effects known.								
Specific target organ syste	em toxicity	- repeated	expos	ure:	111			: ' '
No effects known.		1	, * *		·:			1
Specific target organ syste	em toxicity	- single ex	posure	:				
May cause respiratory irrit	ation.					1	**,	
Aspiration hazard:	':				111			:"

Inorganic bromides may produce depression, emaciation and in severe cases, psychosis and mental deterioration. Bromoderma, a bromide rash, often occurs when bromide inhalation or administration is

prolonged. This rash is usually found on the face and resembles acne and furunculosis.

Lanthanons can cause delayed blood clotting leading to hemorrhages.

Exposure may also lead to sensitivity to heat, itching, increased awareness of odor and taste, and liver

damage.

Subacute to chronic toxicity:

No effects known.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:

No further relevant information available.

Persistence and degradability

No further relevant information available.

Bioaccumulative potentialNo further relevant information available.

Mobility in soil

No further relevant information available.

Additional ecological information:

General notes:

Do not allow material to be released to the

environment without proper governmental permits.

Do not allow undiluted product or large quantities to

reach ground water, water course or sewage system.

Avoid transfer into the environment.

Not applicable.	;	'''	,	;	'''	1	;	'',		1
vPvB:										
Not applicable.	'		111	'		111	'		111	
Other adverse effects			';			1			1:	
No further relevant info	rmation	available	ə.	:'	**.		:'	**.	* ;	;'
SECTION 13. E										
Waste treatment metho	ods		1	. * *		1	. ' '		1	, ' '
Recommendation	;			;			;			;
Consult state, local or r	national	regulatio	ns to e	nsure p	roper dis	sposal.				
Uncleaned packagings:			: ' '			: ' '				٠
Recommendation: Disposal must be made	accord	ding to of	ficial re	gulatior	ns.	3	.**		1	
Recommended cleansi	ng ager	nt:		;			;			: '
Water, if necessary with	n cleans									
SECTION 14. T	RAN	ISPOF	RT IN	IFOR	RMAT	ION	. * *		1	
Not a hazardous mater	, '						: '			:'

Results of PBT and vPvB assessment

PBT:

UN-Number

None

None

DOT, IMDG, IATA

DOT, IMDG, IATA

UN proper shipping name

Transport hazard class(es)

DOT, ADR, IMDG, IATA

Class			';			1			1
Nono									
Packing group	:			;	***		:	**.	
DOT, IMDG, IATA									
None	'	, ,	:	'		111			: ' '
Environmental haza	rds: ,··		·:	. * *		1			`:
Not applicable.	:			, '			,		
Special precautions			,	i		,	,	,	,
Not applicable.			: "			;**			
Transport in bulk ac	cording to	Annex I	of MARI	POL73	/78 and	the IBC (Code		
Not applicable Trans	sport/Addi	tional inf	ormation:	. '''		':	. ' '	. :	<u>'</u> ;
Not dangerous acco	ording to th	ne above	specifica	ations.			;		
DOT									
Marine Pollutant (Do	OT): +,,		111	1		111			
No									
<u></u>			<u> </u>			<u> </u>			<u>':</u>
	:			;			;		
SECTION 15	. REGI	JLAT	ORY I	NFC	RMA	TION			
Safety, health and e	nvironme	ntal regu	lations/le	gislatio	n specifi	ic for the	substa	nce or m	ixture
GHS label elements	3		·:						· ;
The product is class	ified and I	abeled in	n accorda	ince w	ith 29 CF	R 1910	(OSHA	HCS)	
Hazard pictograms	: '			;		, ,	;		
GHS07									
Signal word			111	1		111	1		: ' '
Warning			·:	, 11		1			1
Hazard statements									
H315 Causes skin i	rritation.			:		,	1		•
H319 Causes seriou	us eye irrit	ation.							
H335 May cause re	spiratory i	rritation.	,		,			,	
Précautionary staté	ments '		1			';	, 11		1

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P261

Avoid breathing dust/fume/gas/mist/vapours/spray.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P405

Store locked up.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic

Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL).

SARA Section 313 (specific toxic chemical listings)

Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer

Substance is not listed.

Prop 65 - Developmental toxicity

Substance is not listed.

Prop 65 - Developmental toxicity, female

Substance is not listed.

Prop 65 - Developmental toxicity, male

Substance is not listed.

Information about limitation of use:

For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

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) No1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use)

Substance is not listed.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

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.