



1. Identification

Product identifier	Lead Acid Battery Wet, Filled With Acid	
Other means of identification		
Synonyms	may include gel/absorbed electrolyte type lead acid batteries	
Recommended use	Electric storage battery.	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer/Supplier	East Penn Manufacturing Company, Inc.	
Address	102 Deka Road, Lyon Station PA 19536	
Telephone number	(610) 682-6361	
Contact person	East Penn EHS Department	
Emergency telephone number	USA/Canada: CHEMTREC (800) 424-9300, Outside USA 1 (703) 527-3887	
E-mail	contactus@eastpenn-deka.com	

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 1A
	Serious eye damage/eye irritation	Category 1
	Carcinogenicity	Category 1A
	Reproductive toxicity	Category 1A
	Reproductive toxicity	Effects on or via lactation
	Specific target organ toxicity, single exposure	Category 1 (respiratory system)
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, repeated exposure	Category 1 (respiratory system)
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified.	
Label elements		



Signal word Hazard statement Danger

The materials contained in this product may only represent a hazard if the integrity of the cell or battery is compromised; physically, thermally, or electrically abused. The below are the hazards anticipated under those conditions:

Harmful if swallowed. Harmful if inhaled. Causes severe skin burns and eye damage. May cause cancer. May damage fertility or the unborn child. May cause harm to breast-fed children. Causes damage to organs (respiratory system). Causes damage to organs (respiratory system) through prolonged or repeated exposure. May cause respiratory irritation. Very toxic to aquatic life with long lasting effects.

Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Do not breathe dust/mist/vapors. Do not eat, drink or smoke when using this product. Avoid contact during pregnancy/while nursing. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment.
Response	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Collect spillage.
Storage	Store in a well-ventilated place. Keep container tightly closed.
Disposal	Refer to manufacturer/supplier for information on recovery/recycling. Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	In use, may form flammable/explosive vapor-air mixture.
	Under normal conditions of processing and use, exposure to the chemical constituents in this product is unlikely. The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

3. Composition/information on ingredients

Mixtures

Chemical name		CAS number	%
Lead and lead compounds (inorganic)		7439-92-1	43 - 70
Electrolyte (Sulfuric acid)		7664-93-9	20 - 44
Antimony		7440-36-0	3 - 5
Composition comments	All concentrations are in percent by weig percent by volume. Content composition concentrations will the exact percentage as trade secret und	vary with battery type/size. The m	nanufacturer has claime
4. First-aid measures			
Inhalation	Exposure to contents of an open or dam person under observation. Get medical a		
Skin contact	Exposure to contents of an open or dam least 15 minutes while removing contam irritation develops and persists.		
Eye contact	Exposure to contents of an open or dam minutes. Hold eyelids open during flushi attention if irritation develops and persist	ng. If irritation persists, repeat flus	
Ingestion	Exposure to contents of an open or dam induce vomiting because of danger of as immediately.		
Most important symptoms/effects, acute and delayed	Under normal conditions of processing a product is unlikely. The battery should no contained within or their combustion pro- Heavy lead exposure may result in centr to the blood-forming (hematopoietic) tiss	ot be opened or burned. Exposure ducts could be harmful. ral nervous system damage, ence	e to the ingredients
Indication of immediate medical attention and special treatment needed	Treat symptomatically.		
General information	Ensure that medical personnel are award protect themselves.	e of the material(s) involved, and	take precautions to
5 Eiro fighting mooouroo			

5. Fire-fighting measures

Suitable extinguishing media	Dry chemical, foam, carbon dioxide, water fog.
Suitable extinguisining media	Dry chemical, ioani, carbon dioxide, water iog.

Unsuitable extinguishing media	Do NOT use water on live electrical circuits.
Specific hazards arising from the chemical	Batteries evolve flammable hydrogen gas during charging and may increase fire risk. Containers may explode when heated.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
Fire fighting equipment/instructions	In case of fire do not breathe fumes. Move container from fire area if it can be done without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of corrosive and flammable materials.

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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid contact with skin.
Methods and materials for containment and cleaning up	Neutralize the spilled material before disposal. Sweep up or vacuum up spillage and collect in suitable container for disposal. Dispose of waste and residues in accordance with local authority requirements.
Environmental precautions	Prevent runoff from entering drains, sewers, or streams.
7. Handling and storage	
Precautions for safe handling	In the event of damage resulting in a leak of exposed materials, avoid contact with contents of an open or damaged cell or battery. Keep away from heat, sparks and open flame. Do not allow conductive material to touch the battery terminals. A dangerous short-circuit may occur and cause battery failure and fire. Pregnant or breastfeeding women must not handle this product.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Protect containers from damage. Place cardboard between layers of stacked batteries to avoid damage and short circuits.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

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Components	Туре	Value	
Lead and lead compounds (inorganic) (CAS 7439-92-1)	TWA	0.05 mg/m3	
US. OSHA Table Z-1 Limits for Air (Contaminants (29 CFR 1910	.1000)	
Components	Туре	Value	
Antimony (CAS 7440-36-0)	PEL	0.5 mg/m3	
Electrolyte (Sulfuric acid) (CAS 7664-93-9)	PEL	1 mg/m3	
US. ACGIH Threshold Limit Values			
Components	Туре	Value	Form
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m3	
Electrolyte (Sulfuric acid) (CAS 7664-93-9)	TWA	0.2 mg/m3	Thoracic fraction.
Lead and lead compounds (inorganic) (CAS 7439-92-1)	TWA	0.05 mg/m3	
US. NIOSH: Pocket Guide to Chemi	cal Hazards		
Components	Туре	Value	
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m3	
Electrolyte (Sulfuric acid) (CAS 7664-93-9)	TWA	1 mg/m3	

Components	Туре	•	Va	lue
Lead and lead compounds (inorganic) (CAS 7439-92-1)	TWA		0.0	95 mg/m3
iological limit values	No biological expos	ure limits noted fo	r the ingredient(s).
ACGIH Biological Exposu				
Components	Value	Determinant	Specimen	Sampling Time
Lead and lead compounds (inorganic) (CAS 7439-92-1)	200 µg/l	Lead	Blood	*
* - For sampling details, plea	ase see the source doc	ument.		
ppropriate engineering ontrols	Provide adequate v	entilation. Provide	easy access to v	vater supply and eye wash facilities.
dividual protection measure	s, such as personal pi	otective equipme	ent	
Eye/face protection	None under normal side shields (or gog			or opened battery: Wear safety glasses wi
Skin protection				
Hand protection	chemical resistant g	gloves. Glove mate	erial: Nitrile rubbe	or opened battery: Wear appropriate r Layer thickness: 0.152 or 0.381 mm n be recommended by the glove supplier.
Skin protection				
Other	None under normal chemical resistant o			or opened battery: Wear appropriate n is recommended.
Beenirotony protection	None under normal	conditions.		
Respiratory protection				
Thermal hazards	When material is he	eated, wear gloves	to protect agains	t thermal burns.

9. Physical and chemical properties

Appearance	
Physical state	Solid.
Form	Sulfuric acid, liquid. Lead, solid.
Color	Not available.
Odor	Odorless.
Odor threshold	Not available.
рН	< 1
Melting point/freezing point	Not available.
Initial boiling point and boiling range	235 - 240 °F (112.8 - 115.6 °C) (Sulfuric acid)
Flash point	Below room temperature (as hydrogen gas).
Evaporation rate	< 1 (n-BuAc=1)
Flammability (solid, gas)	
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	4 % (Hydrogen)
Flammability limit - upper (%)	74 % (Hydrogen)
Vapor pressure	10 mm Hg
Vapor density	> 1 (Air=1)
Relative density	1.27 - 1.33
Solubility(ies)	
Solubility (water)	100 % (Sulfuric acid)

Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
10. Stability and reactivity	
Reactivity	The product is non-reactive under normal conditions of use, storage and transport.

Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Will not occur.
Conditions to avoid	Overcharging. Ignition sources.
Incompatible materials	Strong bases. Combustible organic materials. Reducing agents. Finely divided metals. Strong oxidizers. Water.
Hazardous decomposition products	Sulfur dioxide. Sulfur trioxide. Carbon monoxide. Sulfuric acid. Hydrogen.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Exposure to contents of an open or damaged battery: Harmful if inhaled. Dust may irritate respiratory system. Difficulty in breathing. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.	
Skin contact	Exposure to contents of an open or damaged battery: Causes skin burns.	
Eye contact	Exposure to contents of an open or damaged battery: Causes severe eye burns.	
Ingestion	Exposure to contents of an open or damaged battery: Harmful if swallowed.	
Symptoms related to the physical, chemical and toxicological characteristics	Under normal conditions of processing and use, exposure to the chemical constituents in this product is unlikely. The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful. Heavy lead exposure may result in central nervous system damage, encephalopathy and damage to the blood-forming (hematopoietic) tissues.	

Information on toxicological effects

Acute toxicity	Exposure to contents of an open or damaged battery: Harmful if inhaled or swallowed.	
Components	Species	Test Results
Electrolyte (Sulfuric acid) (CAS 76	64-93-9)	
Acute		
Oral		
LD50	Rat	2140 mg/kg
Skin corrosion/irritation	Exposure to contents of an op	en or damaged battery: Causes severe skin burns.
Serious eye damage/eye irritation	Exposure to contents of an open or damaged battery: Causes serious eye damage.	
Respiratory or skin sensitizatio	n	
Respiratory sensitization	No data available.	
Skin sensitization	No data available.	
Germ cell mutagenicity	No data available.	
Carcinogenicity	The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mists containing sulfuric acid" as a known human carcinogen, (IARC category 1). This classification applies only to mists containing sulfuric acid and not to sulfuric acid or sulfuric acid solutions.	
IARC Monographs. Overall	Evaluation of Carcinogenicity	
Electrolyte (Sulfuric acid)) (CAS 7664-93-9) ids (inorganic) (CAS 7439-92-1)	1 Carcinogenic to humans. 2B Possibly carcinogenic to humans.

NTP Report on Carcinogens

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Electrolyte (Sulfuric acid) (CAS 7664-93-9) Lead and lead compounds (inorganic) (CAS 7439-92-1)		Known To Be Human Carcinogen.
	d Substances (29 CFR 1910.10	, , , , , , , , , , , , , , , , , , , ,
Not listed.		
Reproductive toxicity		. Exposure to contents of an open or damaged battery: May cause damage fertility or the unborn child.
Specific target organ toxicity - single exposure		. Exposure to contents of an open or damaged battery: Causes system). May cause respiratory irritation.
Specific target organ toxicity - repeated exposure		. Exposure to contents of an open or damaged battery: Causes system) through prolonged or repeated exposure.
Aspiration hazard	Due to the physical form of the	e product it is not an aspiration hazard.
Chronic effects	nervous system damage, ence	en or damaged battery: Heavy lead exposure may result in central ephalopathy and damage to the blood-forming (hematopoietic) sulfuric acid mist may increase the risk of lung cancer.

12. Ecological information

Ecotoxicity None under normal conditions. Exposure to contents of an open or damaged battery: Very toxic to aquatic life with long lasting effects.

Components	Components		Test Results
Lead and lead compounds (i	inorganic) (CAS	7439-92-1)	
	LC50	Rainbow trout, donaldson trout (Oncorhynhus mykiss)	1.17 mg/l, 96 Hours
Persistence and degradability	The degrada in water.	tion half-life of the product is not known	. Lead and its compounds are highly persistent
Bioaccumulative potential		tion of lead occurs in aquatic and terres tion occurs through the food chain.	trial animals and plants, but very little
Mobility in soil	If the produc groundwater		ill or may be mobile and may contaminate
Mobility in general	The product	is insoluble in water and will spread on	water surfaces.
Other adverse effects	None known		

13. Disposal considerations

Disposal instructions	Recycle the batteries, as the primary disposal method. Neutralize electrolyte/sulfuric acid. Avoid discharge into water courses or onto the ground. Do not contaminate ponds, waterways or ditches with chemical or used container.
Local disposal regulations	Empty containers should be taken to an approved waste handling site for recycling or disposal.
Hazardous waste code	RCRA: Spent lead-acid batteries are not regulated as hazardous waste when recycled. Depending upon circumstances, the following waste codes may apply: Spilled electrolyte/Sulfuric acid. D002: Corrosive waste
Waste from residues / unused products	Avoid discharge into water courses or onto the ground.
Contaminated packaging	Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN2794
UN proper shipping name	Batteries, wet, filled with acid, electric storage
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	-
Environmental hazards	
Marine pollutant	No
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Packaging exceptions	159
Packaging non bulk	159

Packaging bulk	159	
ΙΑΤΑ		
UN number	UN2794	
UN proper shipping name	Batteries, wet, filled with acid	electric storage
Transport hazard class(es)		
Class	8	
Subsidiary risk	-	
Packing group	-	
Environmental hazards	No	
ERG Code	8L	
Special precautions for user	Read safety instructions, SDS Packing Instruction: 870	and emergency procedures before handling.
IMDG	Packing Instruction. 870	
UN number	UN2794	
UN proper shipping name	BATTERIES, WET, FILLED W	/ITH ACID electric storage
Transport hazard class(es)	DATTERIES, WET, TIELED W	And All electric storage
Class	8	
Subsidiary risk	-	
Packing group	-	
Environmental hazards		
Marine pollutant	No	
EmS	F-A, S-B	
Special precautions for user		and emergency procedures before handling.
	Packing Instruction: P801	
Transport in bulk according to	Not applicable.	
Annex II of MARPOL 73/78 and the IBC Code		
15. Regulatory information	l	
US federal regulations		Chemical" as defined by the OSHA Hazard Communication
	Standard, 29 CFR 1910.1200.	
	Hazardous Chemical Reportin	g Requirements apply when an Extremely Hazardous Substance is
	present at a facility in an amou	int equal to or exceeding 500 pounds or the Threshold Planning
	Quantity, whichever is lower p	er 40CFR370.10(a)(1)
TSCA Section 12(b) Exp	ort Notification (40 CFR 707, S	Subpt. D)
Lead and lead compo (CAS 7439-92-1)	ounds (inorganic)	0.1 % Annual Export Notification required.
CERCLA Hazardous Sub	ostance List (40 CFR 302.4)	
Antimony (CAS 7440-	-36-0)	Listed.
Electrolyte (Sulfuric a	, (Listed.
Lead and lead compo	ounds (inorganic)	Listed.
(CAS 7439-92-1) SARA 304 Emergency re	lease notification	
SULFURIC ACID (CA		1000 LBS
	lated Substances (29 CFR 19 ²	
Lead and lead compo (CAS 7439-92-1)	ounds (inorganic)	Reproductive toxicity
		Central nervous system Kidnev

Kidney Blood

Acute toxicity

Toxic Substances Control Act (TSCA)

All components of the mixture on the TSCA 8(b) inventory are designated "active".

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

		quantity (pounds)	planning quantity (pounds)	planning quantity, lower value (pounds)	planning quantity, upper value (pounds)
Electrolyte (Sulfuric acid)	7664-93-9	1000	1000		
SARA 311/312 Hazardo chemical	ous Yes				
Classified hazard categories	Skin corros Serious ey Carcinoger Reproducti	Acute toxicity (any route of exposure) Skin corrosion or irritation Serious eye damage or eye irritation Carcinogenicity Reproductive toxicity Specific target organ toxicity (single or repeated exposure)			
SARA 313 (TRI reportir	ng)				
Chemical name		C	AS number	% by wt.	
Antimony Electrolyte (Sulfuric Lead and lead com		7	7440-36-0 7664-93-9 7439-92-1	3 - 5 20 - 44 43 - 70	
er federal regulations					
Clean Air Act (CAA) Se	ction 112 Hazard	ous Air Polluta	nts (HAPs) List		
Antimony (CAS 744 Lead and lead com Clean Air Act (CAA) Se	pounds (inorganic)		/	8.130)	
Electrolyte (Sulfuric	acid) (CAS 7664-9	93-9)			
Safe Drinking Water Ac (SDWA)	ct Contains c	omponent(s) reg	ulated under the Safe I	Drinking Water Act.	
Drug Enforcement Chemical Code Nu		DEA). List 2, Es	sential Chemicals (21	I CFR 1310.02(b) and 1	310.04(f)(2) and
	furic acid) (CAS 76 Administration (I		6552 2 Exempt Chemical Mi	ixtures (21 CFR 1310.1	2(c))
Electrolyte (Sul DEA Exempt Chen	furic acid) (CAS 76 nical Mixtures Co	· ·	20 %WV		
Electrolyte (Sul	furic acid) (CAS 76	64-93-9)	6552		
state regulations					
US. Massachusetts RT	K - Substance Lis	st			
Antimony (CAS 744 Electrolyte (Sulfuric Lead and lead com US. New Jersey Worke	acid) (CAS 7664-9 pounds (inorganic)	(CAS 7439-92-			
Antimony (CAS 744 Electrolyte (Sulfuric Lead and lead com	0-36-0) acid) (CAS 7664-9	93-9)			
US. Pennsylvania Worl					
Antimony (CAS 744 Electrolyte (Sulfuric Lead and lead com	acid) (CAS 7664-9		1)		
US. Rhode Island RTK Antimony (CAS 744			-)		
Electrolyte (Sulfuric Lead and lead com	acid) (CAS 7664-9		1)		
California Proposition	65				
WARNING	or PROPOSITION	65 WARNING:		a.gov s and related accessorie fornia to cause cancer a	

California Proposition	n 65 - CRT: Listed date/Car	cinogenic substance	
Arsenic (CAS 744		Listed: February 27, 1987	
	c acid) (CAS 7664-93-9)	Listed: March 14, 2003	
Lead and lead compounds (inorganic) (CAS 7439-92-1)		Listed: October 1, 1992	
California Proposition	n 65 - CRT: Listed date/Dev	velopmental toxin	
Lead and lead con (CAS 7439-92-1)	Lead and lead compounds (inorganic) (CAS 7439-92-1)		
California Proposition	n 65 - CRT: Listed date/Fen	nale reproductive toxin	
Lead and lead con (CAS 7439-92-1)	mpounds (inorganic)	Listed: February 27, 1987	
California Proposition	n 65 - CRT: Listed date/Mal	e reproductive toxin	
Lead and lead con (CAS 7439-92-1)	mpounds (inorganic)	Listed: February 27, 1987	
US. California. Candio subd. (a))	date Chemicals List. Safer	Consumer Products Regulations (Cal. Co	de Regs, tit. 22, 69502.3,
	40-36-0) c acid) (CAS 7664-93-9) mpounds (inorganic) (CAS 74	439-92-1)	
International Inventories			
International Inventories Country(s) or region	Inventory name		On inventory (yes/no)*
	•	Chemical Substances (AICS)	On inventory (yes/no) * Yes
Country(s) or region	•		
Country(s) or region Australia	Australian Inventory of C	ist (DSL)	Yes
Country(s) or region Australia Canada	Australian Inventory of C Domestic Substances Li Non-Domestic Substance	ist (DSL)	Yes Yes
Country(s) or region Australia Canada Canada	Australian Inventory of C Domestic Substances Li Non-Domestic Substanc Inventory of Existing Ch	ist (DSL) ces List (NDSL)	Yes Yes No
Country(s) or region Australia Canada Canada China	Australian Inventory of C Domestic Substances Li Non-Domestic Substance Inventory of Existing Ch European Inventory of E Substances (EINECS)	ist (DSL) ces List (NDSL) emical Substances in China (IECSC)	Yes Yes No Yes
Country(s) or region Australia Canada Canada China Europe	Australian Inventory of C Domestic Substances Li Non-Domestic Substance Inventory of Existing Ch European Inventory of E Substances (EINECS) European List of Notified	ist (DSL) ces List (NDSL) emical Substances in China (IECSC) Existing Commercial Chemical	Yes Yes No Yes No
Country(s) or region Australia Canada Canada China Europe Europe	Australian Inventory of C Domestic Substances Li Non-Domestic Substance Inventory of Existing Ch European Inventory of E Substances (EINECS) European List of Notified	ist (DSL) ces List (NDSL) emical Substances in China (IECSC) Existing Commercial Chemical d Chemical Substances (ELINCS) d New Chemical Substances (ENCS)	Yes Yes No Yes No
Country(s) or region Australia Canada Canada China Europe Europe Japan	Australian Inventory of C Domestic Substances Li Non-Domestic Substance Inventory of Existing Ch European Inventory of E Substances (EINECS) European List of Notified Inventory of Existing and	ist (DSL) ces List (NDSL) emical Substances in China (IECSC) Existing Commercial Chemical d Chemical Substances (ELINCS) d New Chemical Substances (ENCS)	Yes Yes No Yes No No
Country(s) or region Australia Canada Canada China Europe Europe Japan Korea	Australian Inventory of C Domestic Substances Li Non-Domestic Substance Inventory of Existing Ch European Inventory of E Substances (EINECS) European List of Notified Inventory of Existing and Existing Chemicals List	ist (DSL) ces List (NDSL) emical Substances in China (IECSC) Existing Commercial Chemical d Chemical Substances (ELINCS) d New Chemical Substances (ENCS)	Yes Yes No Yes No No Yes
Country(s) or region Australia Canada Canada China Europe Europe Japan Korea New Zealand	Australian Inventory of C Domestic Substances Li Non-Domestic Substance Inventory of Existing Ch European Inventory of E Substances (EINECS) European List of Notified Inventory of Existing and Existing Chemicals List New Zealand Inventory Philippine Inventory of C	ist (DSL) ces List (NDSL) emical Substances in China (IECSC) Existing Commercial Chemical d Chemical Substances (ELINCS) d New Chemical Substances (ENCS) (ECL) Chemicals and Chemical Substances	Yes Yes No Yes No No Yes Yes
Country(s) or region Australia Canada Canada China Europe Europe Japan Korea New Zealand Philippines	Australian Inventory of C Domestic Substances Li Non-Domestic Substance Inventory of Existing Cha European Inventory of E Substances (EINECS) European List of Notified Inventory of Existing and Existing Chemicals List New Zealand Inventory Philippine Inventory of C (PICCS) Taiwan Chemical Substa	ist (DSL) ces List (NDSL) emical Substances in China (IECSC) Existing Commercial Chemical d Chemical Substances (ELINCS) d New Chemical Substances (ENCS) (ECL) Chemicals and Chemical Substances ance Inventory (TCSI)	Yes Yes No Yes No No Yes Yes Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	19-September-2017
Revision date	31-August-2020
Version #	03
List of abbreviations	LC50: Lethal Concentration 50%. LD50: Lethal Dose 50%.
References	IARC Monographs. Overall Evaluation of Carcinogenicity Registry of Toxic Effects of Chemical Substances (RTECS)
Disclaimer	EastPenn cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. The information in this SDS was obtained from sources which we believe are reliable, but no warranty or representation as to its accuracy or completeness is hereby given. Users should consider the information herein only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal, the safety and health of employees and customers and the protection of the environment.