

Electrolyte (Sulfuric Acid (H2SO4/H2O))

Styrene Acrylonitrile

Styrene Butadiene

Polyvinylchloride

Acrylonitrile Butadiene Styrene

Polycarbonate, Hard Rubber, Polyethylene

Polypropylene

Polystyrene

Case Material:

Power/Full Solutions			ECO #: 1001702		
I. PRODUCT IDENTIFICATION					
Chemical Trade Name (as used on label):		Chemical Family/Classi			
Non-Spillable Lead Acid Battery		Electric Storage Battery			
Synonyms:					
Industrial Battery, Traction Battery, Stationary Battery,		Telephone:			
Deep Cycle Battery		For information and emer	ergencies, contact EnerSys'		
Manufacturer's Name/Address:		Environmental, Health & Safety Dept. at 610-208-1996			
EnerSys					
P.O. Box 14145		24-Hour Emergency Response Contact:			
2366 Bernville Road		CHEMTREC DOMESTIC	IC: 800-424-9300 CHEMTREC INT'L: 703-527-3877		
Reading, PA 19612-4145					
II GHS HAZARDS IDENTFICATION					
HEALTH		ENVIRONMENTAL	PHYSICAL		
Acute Toxicity		Aquatic Chronic 1	Explosive Chemical, Division 1.3		
(Oral/Dermal/Inhalation) Category 4		Aquatic Acute 1			
Skin Corrosion/Irritation Category 1A	<u> </u>				
Eye Damage Category 1					
Reproductive Category 1A					
Carcinogenicity (lead compounds) Category 1B					
Carcinogenicity (arsenic) Category 1A	.				
Carcinogenicity (acid mist) Category 1A					
Specific Target Organ Category 2					
Toxicity (repeated exposure)					
GHS LABEL:					
HEALTH		ENVIRONMENTAL	PHYSICAL		
		\sim			
Hazard Statements	Precautionary State	ements			
DANGER!	Wash thoroughly afte	Wash thoroughly after handling.			
Causes severe skin burns and serious eye damage.	Do not eat, drink or s	moke when using this prod	duct.		
May damage fertility or the unborn child if ingested or	Wear protective glov	Wear protective gloves/protective clothing, eye protection/face protection.			
inhaled.	Avoid breathing dust	Avoid breathing dust/fume/gas/mist/vapors/spray.			
May cause cancer if ingested or inhaled.	-	Use only outdoors or in a well-ventilated area.			
Causes damage to central nervous system, blood and			ritation or severe burns. Avoid contact with internal acid.		
kidneys through prolonged or repeated exposure.		piratory system, and skin.			
May form explosive air/gas mixture during charging.					
	Obtain special instru				
Extremely flammable gas (hydrogen).		Ill safety precautions have b			
Explosive, fire, blast, or projection hazard.		Avoid contact during pregnancy/while nursing			
May cause harm to breast-fed children	Keep away from hear	t./sparks/open flames/hot su	surfaces. No smoking		
Harmful if swallowed, inhaled, or contact with skin					
Causes skin irritation, serious eye damage.					
III. HAZARDOUS INGREDIENTS/IDENTIFY INF					
Components	CAS Number	Approximate % by			
		Wt.			
Inorganic Lead Compound:	5 100 00 1	15.50			
Lead	7439-92-1	45-60			
Lead Dioxide	1309-60-0	15-25			
* Antimony	7440-36-0	2			
* Arsenic	7440-38-2	0.2			
* Calcium * Ti-	7440-70-2	0.04			
* Tin Electrolyte (Sulfuric Acid (H2SO4/H2O))	7440-31-5	0.2			

10-30

5-10

7664-93-9

9003-07-0

9003-53-6

9003-54-7

9003-56-9

9003-55-8

9002-86-2

9002-88-4



SAFETY DATA SHEET

Other: IV. FIRST Inhalation:	Silicon Dioxide (Gel batteries only) Sheet Molding Compound (Glass reinforced polyester) Inorganic lead and electrolyte (sulfuric acid) are the pr Other ingredients may be present dependent upon batte	7631-86-9 	1-5			
IV. FIRST	Sheet Molding Compound (Glass reinforced polyester) Inorganic lead and electrolyte (sulfuric acid) are the pr	7631-86-9 	1-5			
	Sheet Molding Compound (Glass reinforced polyester) Inorganic lead and electrolyte (sulfuric acid) are the pr		10			
	(Glass reinforced polyester) Inorganic lead and electrolyte (sulfuric acid) are the pr					
	Inorganic lead and electrolyte (sulfuric acid) are the pr					
		many components of a	vary hattary manufact	urad by EporSys		
	Other ingredients may be present dependent upon batte	• •	• •			
		ery type. Contact your	EnerSys representativ	e for additional information.		
Innalation:						
	Sulfuric Acid: Remove to fresh air immediately. If br	athing is difficult give	a avugan. Conquit a pi	hypinion		
	-		e oxygen. Consult a pi	nysician.		
	Lead: Remove from exposure, gargle, wash nose and l	ips; consult physician.				
Ingestion:						
	Sulfuric Acid: Give large quantities of water; do not in	iduce vomiting or aspi	ration into the lungs m	hay occur and can cause permanent injury or death;		
	consult a physician.					
	Lead: Consult physician immediately.					
Skin:						
	Sulfuric Acid: Flush with large amounts of water for a	t least 15 minutes; rem	ove contaminated clot	thing completely, including shoes.		
	If symptoms persist, seek medical attention. Wash con	aminated clothing bef	ore reuse. Discard con	taminated shoes.		
	Lead: Wash immediately with soap and water.					
Eyes:						
	Sulfuric Acid and Lead: Flush immediately with large	amounts of water for a	least 15 minutes whil	le lifting lids		
	Seek immediate medical attention if eyes have been ex	posed directly to acid.				
V. FIRE FI	IGHTING MEASURES	• •				
Flash Point	: N/A	Flammable Limits:	LEL = 4.1% (Hydroge	en Gas) UEL = 74.2%		
Extinguishi	ng Media: CO2; foam; dry chemical. Do not use carbo	n dioxide directly on c	ells. Avoid breathing v	vapors. Use appropriate media for surrounding fire.		
	e Fighting Procedures:	•	· · ·			
	If batteries are on charge, shut off power. Use positive	e pressure, self-contain	ed breathing apparatus	s. Water applied to electrolyte generates		
	heat and causes it to spatter. Wear acid-resistant cloth	•	÷			
	But note that strings of series connected batteries may			arging equipment is shut down		
Unusual Fir	re and Explosion Hazards:	sun pose nisk of clecu	e shoek even when en	anging equipment is shut down.		
Chubuur I h	Highly flammable hydrogen gas is generated during ch	arging and operation o	f batteries To avoid r	risk of fire or explosion keep sparks or other		
	sources of ignition away from batteries. Do not allow					
	÷ •		inuitaneously contact i	negative and positive terminals of cens and		
	batteries. Follow manufacturer's instructions for instal	lation and service.				
	AUTIONS FOR SAFE HANDLING AND USE					
Spill or Lea	<u>k Procedures:</u>			combustible motorials. If a socible comfully,		
	Stop flow of material, contain/absorb small spills with			· ·		
	neutralize spilled electrolyte with soda ash, sodium bic					
	allow discharge of unneutralized acid to sewer. Acid m		ordance with local, sta	ate, and federal requirements.		
	Consult state environmental agency and/or federal EPA.					
	DLING AND STORAGE					
Handling:						
Unless invol	lved in recycling operations, do not breach the casing or	empty the contents of	the battery. Handle car	refully and avoid tipping,		
which may a	allow electrolyte leakage. There may be increasing risk of	f electric shock from s	trings of connected ba	atteries.		
Keep contain	containers tightly closed when not in use. If battery case is broken, avoid contact with internal components.					
Keep vent ca	aps on and cover terminals to prevent short circuits. Pla	ce cardboard between	layers of stacked autor	motive batteries to avoid damage and short circuits.		
-	from combustible materials, organic chemicals, reducing		•	-		
shipping.		,	8			
Storage:						
	es in cool dry well-ventilated areas with impervious su	rfaces and adequate co	ntainment in the even	t of spills Batteries should		
	batteries in cool, dry, well-ventilated areas with impervious surfaces and adequate containment in the event of spills. Batteries should					
	e stored under roof for protection against adverse weather conditions. Separate from incompatible materials. Store and handle only is with adequate water supply and spill control. Avoid damage to containers. Keep away from fire, sparks and heat. Keep away from metallic objects could					
			away from fire, sparks	and near. Keep away from metallic objects could		
	erminals on a battery and create a dangerous short-circui	t.				
<u>Charging:</u>		1.0				
	ossible risk of electric shock from charging equipment a	-				
	gers whenever not in use and before detachment of any circuit connections. Batteries being charged will generate and release flammable hydrogen gas.					
Charging spa	ace should be ventilated. Keep battery vent caps in posi	tion. Prohibit smoking	and avoid creation of	flames and sparks nearby.		
Wear face an	nd eye protection when near batteries being charged.					
There is a po chargers who Charging spa	enever not in use and before detachment of any circuit c ace should be ventilated. Keep battery vent caps in posi	onnections. Batteries b	eing charged will gen	erate and release flammable hydrogen gas.		



SAFETY DATA SHEET

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits (mg/m3) Note:	S/PERSONAL PROTECTIC N.E.= Not Established			1		
	OGUA PEL	1000		Out DEV		EU OPI
INGREDIENTS	OSHA PEL	ACGIH	US NIOSH	Quebec PEV	Ontario OEL	EU OEL
(Chemical/Common Names)						
Lead and Lead Compounds inorganic)	0.05	0.05	0.05	0.05	0.05	0.15 (b)
Antimony	0.05	0.03	0.03	0.05	0.03	0.13 (b) 0.5 (b,e)
Arsenic	0.01	0.01	0.002	0.3	0.01	N.E
Calcium	0.01 N.E	N.E	N.E	N.E	N.E	N.E
Fin	2	2	2	2	2	N.E
Electrolyte (Sulfuric Acid)	1	0.2	1	1	0.2	0.05 (c)
Polypropylene	N.E	N.E	N.E	N.E	N.E	0.05 (c) N.E
Polystyrene	N.E	N.E	N.E	N.E	N.E	N.E
Styrene Acrylonitrile	N.E	N.E	N.E	N.E	N.E	N.E
Acrylonitrile Butadiene	IV.L	I.L	IVLE	IV.L	IV.E	N.L
Styrene	N.E	N.E	N.E	N.E	N.E	N.E
Styrene Butadiene	N.E	N.E	N.E	N.E	N.E	N.E
Polyvinylchloride	N.E	N.E	N.E	N.E	1	N.E
Polycarbonate, Hard						
Rubber, Polyethylene	N.E	N.E	N.E	N.E	N.E	N.E
Silicon Dioxide						
(Gel Batteries Only)	N.E	N.E	N.E	N.E	N.E	N.E
Sheet Molding Compound						
Glass reinforced polyester)	N.E	N.E	N.E	N.E	N.E	N.E
NOTES:	11.12	14.12	11.12	11.12	11.12	TUE
Handle batteries cau clothing, eye and fac positive and negativ Respiratory Protection (NIOSH None required under respiratory protection Skin Protection: If battery case is dar Cve Protection: If battery case is dar Dther Protection: In areas where sulfu	well-ventilated area. If mechai tiously to avoid spills. Make of e protection when filling, char e terminals of the batteries. Ch (/MSHA approved): r normal conditions. When con-	ertain vent caps are on si ging or handling batterie arge the batteries in area ncentrations of sulfuric ar id-resistant gloves with e r face shield. ations greater than 1%, e	ecurely. Avoid contact y s. Do not allow metallic s with adequate ventilati cid mist are known to ex- low-length gauntlet, ac	with internal componer materials to simultane ion. General dilution vo acceed the PEL, use NIC id-resistant apron, clot	ously contact both the entilation is acceptable. OSH or MSHA-approved hing and boots.	
	ended when adding water or el	· ·			8	
X. PHYSICAL AND CHEMIC						
Properties Listed Below are for	Electrolyte:	202 2122 -	a 16 a		1.015	
Boiling Point:		203 - 240° F	Specific Gravity (H2		1.215 to 1.350	
Melting Point:		N/A	Vapor Pressure (mm	-	10	
Solubility in Water		100%	Vapor Density (AIR		Greater than 1	
Evaporation Rate:	(Butyl Acetate = 1)	Less than 1	% Volatile by Weigh	nt:	N/A	
		pH: ~1 to 2	Flash Point:		Below room temperature	(as hydrogen gas)
LEL (Lower Explo	sive Limit)	4.1% (Hydrogen)	UEL (Upper Explosi	ve Limit)	74.2% (Hydrogen)	
Appearance and O	dor:	Manufactured article Electrolyte is a clear	e; no apparent odor. liquid with a sharp, pen	etrating, pungent odor		



Power/Full Solutions	ECO #:	1001702
X. REACTIVITY DATA		
Stability: Stable <u>X</u> Unstable		
This product is stable under normal conditions at ambient temperature		
Conditions To Avoid: Prolonged overcharge; sources of ignition		
Incompatibility: (Materials to avoid)		
Sulfuric Acid: Contact with combustibles and organic materials may cause fire and explosion. Also reacts violently with strong reducing agen	ts	
metals, sulfur trioxide gas, strong oxidizers and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammabl		
	-	
hydrogen gas. Lead Compounds: Avoid contact with strong acids, bases, halides, halogenates, potassium nitrate, permanganate, peroxides, nascent hydrogen		
and reducing agents.		
Arsenic compounds: strong oxidizers; bromine azide. NOTE: hydrogen gas can react with inorganic arsenic to form the highly toxic gas-arsine		
Hazardous Decomposition Products:		
Sulfuric Acid: Sulfur trioxide, carbon monoxide, sulfuric acid mist, sulfur dioxide, and hydrogen sulfide.		
Lead Compounds: High temperatures likely to produce toxic metal fume, vapor, or dust; contact with strong acid or base or presence of nascer	ıt	
hydrogen may generate highly toxic arsine gas.		
Hazardous Polymerization:		
Will not occur		
XI. TOXICOLOGICAL INFORMATION		
Routes of Entry:		
Sulfuric Acid: Harmful by all routes of entry.		
Lead Compounds: Hazardous exposure can occur only when product is heated, oxidized or otherwise processed or damaged to create dust, van	or	
or fume. The presence of nascent hydrogen may generate highly toxic arsine gas.		
Inhalation:		
Sulfuric Acid: Breathing of sulfuric acid vapors or mists may cause severe respiratory irritation.		
Lead Compounds: Inhalation of lead dust or fumes may cause irritation of upper respiratory tract and lungs.		
Ingestion:		
Sulfuric Acid: May cause severe irritation of mouth, throat, esophagus and stomach.		
Lead Compounds: Acute ingestion may cause abdominal pain, nausea, vomiting, diarrhea and severe cramping. This may lead rapidly to syste	emic	
toxicity and must be treated by a physician.		
Skin Contact:		
Sulfuric Acid: Severe irritation, burns and ulceration.		
Lead Compounds: Not absorbed through the skin.		
Arsenic Compounds: Contact may cause dermatitis and skin hyper pigmentation.		
Eye Contact:		
Sulfuric Acid: Severe irritation, burns, cornea damage, and blindness.		
Lead Components: May cause eye irritation.		
Effects of Overexposure - Acute:		
<u>Sulfuric Acid:</u> Severe skin irritation, damage to cornea, upper respiratory irritation.		
Lead Compounds: Symptoms of toxicity include headache, fatigue, abdominal pain, loss of appetite, muscular aches and weakness, sleep		
disturbances and irritability.		
Effects of Overexposure - Chronic:		
<u>Sulfuric Acid:</u> Possible erosion of tooth enamel, inflammation of nose, throat and bronchial tubes.		
Lead Compounds: Anemia; neuropathy, particularly of the motor nerves, with wrist drop; kidney damage; reproductive changes in males and		
females. Repeated exposure to lead and lead compounds in the workplace may result in nervous system toxicity. Some toxicologists report abn	ormal	
conduction velocities in persons with blood lead levels of 50mcg/100 ml or higher. Heavy lead exposure may result in central nervous system		
encephalopathy and damage to the blood-forming (hematopoietic) tissues.	Juniuge,	
Carcinogenicity:		
Sulfuric Acid: The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mist containing sulfuric acid" as	а	
Group 1 carcinogen, a substance that is carcinogenic to humans. This classification does not apply to liquid forms of sulfuric acid or sulfuric	-	
acid solutions contained within a battery. Inorganic acid mist (sulfuric acid mist) is not generated under normal use of this product. Misuse of	the	
product, such as overcharging, may result in the generation of sulfuric acid mist.	ule	
	0 1200	
Lead Compounds: Lead is listed as a Group 2A carcinogen, likely in animals at extreme doses. Per the guidance found in OSHA 29 CFR 1910	J.1200	
Appendix F, this is approximately equivalent to GHS Category 1B. <u>Proof of carcinogenicity in humans is lacking at present.</u>		
Arsenic: Arsenic is listed by IARC as a Group 1 - carcinogenic to humans. Per the guidance found in OSHA 29 CFR 1910.1200 Appendix F,	his is	
approximately equivalent to GHS Category 1A.		
Medical Conditions Generally Aggravated by Exposure:		
Overexposure to sulfuric acid mist may cause lung damage and aggravate pulmonary conditions. Contact of sulfuric acid with skin may aggrav	'ate	
diseases such as eczema and contact dermatitis. Lead and its compounds can aggravate some forms of kidney, liver and neurologic diseases.		



Acute Toxicity:

Inhalation LD50:	Acute Toxicity:				
Inhalation LD50:					
Electrolyte: LC50 rat: 375 mg/m3; LC50: guinea pig: 510 mg/m3					
Elemental Lead: Acute Toxicity Point Estimate = 4500 ppmV (based on lead bullion)					
Elemental Arsenic: No data					
Oral LD50:					
Electrolyte: rat: 2140 mg/kg					
	ity Estimate (ATE) = 500 mg/kg body weight (based on lead bullion)				
Elemental Arsenic: LD50 m	puse: 145 mg/kg				
Elemental Antimony: LD50	rat: 100 mg/kg				
Additional Health Data:					
	s, including the hazardous ingredients in this product, are taken into the body primarily by inhalation and ingestion.				
	problems can be avoided by adequate precautions such as ventilation and respiratory protection covered in Section 8.				
÷ .	rsonal hygiene to avoid inhalation and ingestion: wash hands, face, neck and arms thoroughly before eating, smoking or leaving the				
	contaminated clothing out of non-contaminated areas, or wear cover clothing when in such areas. Restrict the use and presence of food,				
tobacco and co	tobacco and cosmetics to non-contaminated areas. Work clothes and work equipment used in contaminated areas must remain in designated areas and				
never taken ho	ne or laundered with personal non-contaminated clothing. This product is intended for industrial use only and should be isolated from				
children and th	cir environment.				
	lment to EC Directive 67/548/EEC classified lead compounds, but not lead in metal form, as possibly toxic to reproduction.				
Risk phrase 61	May cause harm to the unborn child, applies to lead compounds, especially soluble forms.				
XII. ECOLOGICAL INFO	RMATION				
Environmental Fate:					
	sistent in soil and sediments. No data on environmental degradation. Mobility of metallic lead between ecological compartments is slow.				
	sistent in soil and sediments. No data on environmental degradation. Mobility of metallic lead between ecological compartments is slow. n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain.				
Bioaccumulation Most studies in	n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. clude lead compounds and not elemental lead.				
Bioaccumulati Most studies in Environmental Toxicity: A	n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. clude lead compounds and not elemental lead. quatic Toxicity:				
Bioaccumulation Most studies in	n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. clude lead compounds and not elemental lead. quatic Toxicity: 24-hr LC50, freshwater fish (Brachydanio rerio): 82 mg/L				
Bioaccumulati Most studies in Environmental Toxicity: A	n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. clude lead compounds and not elemental lead. quatic Toxicity: 24-hr LC50, freshwater fish (Brachydanio rerio): 82 mg/L 96 hr- LOEC, freshwater fish (Cyprinus carpio): 22 mg/L				
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Bioaccumulati Most studies ir Environmental Toxicity: A Sulfuric acid: Lead: <u>Arsenic:</u>	n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. clude lead compounds and not elemental lead. quatic Toxicity: 24-hr LC50, freshwater fish (Brachydanio rerio): 82 mg/L 96 hr- LOEC, freshwater fish (Cyprinus carpio): 22 mg/L				
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Bioaccumulatie Most studies in Environmental Toxicity: A Sulfuric acid: Lead: Arsenic: Additional Information: · No known eff	n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. clude lead compounds and not elemental lead. quatic Toxicity: 24-hr LC50, freshwater fish (Brachydanio rerio): 82 mg/L 96 hr- LOEC, freshwater fish (Cyprinus carpio): 22 mg/L 48 hr LC50 (modeled for aquatic invertebrates): <1 mg/L, based on lead bullion 24 hr LC50, freshwater fish (Carrassisus auratus) >5000 g/L. ects on stratospheric ozone depletion.				
Bioaccumulatie Most studies in Environmental Toxicity: A Sulfuric acid: Lead: Arsenic: Additional Information: · No known eff · Volatile organ	n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. clude lead compounds and not elemental lead. quatic Toxicity: 24-hr LC50, freshwater fish (Brachydanio rerio): 82 mg/L 96 hr- LOEC, freshwater fish (Cyprinus carpio): 22 mg/L 48 hr LC50 (modeled for aquatic invertebrates): <1 mg/L, based on lead bullion 24 hr LC50, freshwater fish (Carrassisus auratus) >5000 g/L. ects on stratospheric ozone depletion. ic compounds: 0% (by Volume)				
Bioaccumulatie Most studies in Environmental Toxicity: A Sulfuric acid: Lead: Arsenic: Additional Information: · No known eff · Volatile organ	n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. clude lead compounds and not elemental lead. quatic Toxicity: 24-hr LC50, freshwater fish (Brachydanio rerio): 82 mg/L 96 hr- LOEC, freshwater fish (Cyprinus carpio): 22 mg/L 48 hr LC50 (modeled for aquatic invertebrates): <1 mg/L, based on lead bullion 24 hr LC50, freshwater fish (Carrassisus auratus) >5000 g/L. ects on stratospheric ozone depletion.				
Bioaccumulatie Most studies in Environmental Toxicity: A Sulfuric acid: Lead: Arsenic: Additional Information: No known eff Volatile organ Water Endang XIII. DISPOSAL CONSID	n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. clude lead compounds and not elemental lead. quatic Toxicity: 24-hr LC50, freshwater fish (Brachydanio rerio): 82 mg/L 96 hr- LOEC, freshwater fish (Cyprinus carpio): 22 mg/L 48 hr LC50 (modeled for aquatic invertebrates): <1 mg/L, based on lead bullion 24 hr LC50, freshwater fish (Carrassisus auratus) >5000 g/L. ects on stratospheric ozone depletion. ic compounds: 0% (by Volume) ering Class (WGK): NA ERATIONS (UNITED STATES)				
Bioaccumulatie Most studies in Environmental Toxicity: A Sulfuric acid: Lead: Arsenic: Additional Information: · No known eff · Volatile orgat · Water Endant XIII. DISPOSAL CONSID Spent batteries: Send to set	n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. clude lead compounds and not elemental lead. quatic Toxicity: 24-hr LC50, freshwater fish (Brachydanio rerio): 82 mg/L 96 hr- LOEC, freshwater fish (Cyprinus carpio): 22 mg/L 48 hr LC50 (modeled for aquatic invertebrates): <1 mg/L, based on lead bullion 24 hr LC50, freshwater fish (Carrassisus auratus) >5000 g/L. ects on stratospheric ozone depletion. ic compounds: 0% (by Volume) ering Class (WGK): NA ERATIONS (UNITED STATES) condary lead smelter for recycling. Spent lead-acid batteries are not regulated as hazardous waste when the requirements of				
Bioaccumulatie Most studies in Environmental Toxicity: A Sulfuric acid: <u>Lead:</u> <u>Arsenic:</u> Additional Information: · No known eff · Volatile orgat · Water Endang XIII. DISPOSAL CONSID Spent batteries: Send to set 40 CFR Section 266.80 are for	n of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. clude lead compounds and not elemental lead. quatic Toxicity: 24-hr LC50, freshwater fish (Brachydanio rerio): 82 mg/L 96 hr- LOEC, freshwater fish (Cyprinus carpio): 22 mg/L 48 hr LC50 (modeled for aquatic invertebrates): <1 mg/L, based on lead bullion 24 hr LC50, freshwater fish (Carrassisus auratus) >5000 g/L. ects on stratospheric ozone depletion. ic compounds: 0% (by Volume) ering Class (WGK): NA ERATIONS (UNITED STATES)				
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Following local, State/Provincial, and Federal/National regulations applicable to end-of-life characteristics will be the responsibility of the end-user.



SAFETY DATA SHEET

XIV. TRANSPORT IN	NFORMATION				
U.S. DOT:					
Excepted f	from the hazardous materials regulations (H	MR) because the batteries	s meet the requirements of 49 CFR 173.159(f) and 49 CFR 173.159a		
of the U.S	of the U.S. Department of Transportation/s HMR. Battery and outer package must be marked "NONSPILLABLE" or "NONSPILLABLE BATTERY"				
Battery ter	minals must be protected against short circuit	its.			
ATA Dangerous Goo	ds Regulations DGR:				
Excepted f	from the dangerous goods regulations becaus	e the batteries meet the re	equirements of Packing Instruction 872 and Special Provisions A67 of		
the Interna	the International Air Transportation Association (IATA) Dangerous goods Regulations and International Civil Aviation Organization (ICAO) Technical				
Instruction	ns. Battery Terminals must be protected agai	nst short circuits.			
The words	"NOT RESTRICTED", SPECIAL PROVIS	SION A67" must be provid	ded on an airway bill when air waybill is issued.		
IMDG:					
*	0 0 0		batteries meet the requirements of Special Provision 238 of the		
Internation	nal Maritime Dangerous Goods(IMDG COD	E). Battery terminals mu	st be protected against short circuits.		
XV. REGULATORY	INFORMATION				
UNITED STATES:					
EPA SARA Title III:					
	tremely Hazardous Substances (EHS):				
	-		Threshold Planning Quantity (TPQ) of 1,000 lbs.		
			is present at one site (40 CFR 370.10). For more information consult		
	A V	y by battery type. Contact	t your EnerSys representative for additional information.		
Section 304 CERCLA H					
•	e Quantity (RQ) for spilled 100% sulfuric aci	· •	,		
		o Know Act) is 1,000 lbs.	State and local reportable quantities for spilled sulfuric acid may vary.		
Section 311/312 Hazard	-				
			s if sulfuric acid is present in quantities of 500 lbs or more and/or if lead is		
1	quantities of 10,000 lbs or more. For more in	formation consult 40 CFI	R 370.10 and 40 CFR 370.40.		
Section 313 EPCRA To					
		•	covered facility, a person is not required to consider the quantity of the		
	÷		hreshold has been met under § 372.25, § 372.27, or § 372.28 or		
	determining the amount of release to be reported under § 372.30. This exemption applies whether the person received the article from another person				
or the pers	son produced the article. However, this exem	ption applies only to the q	quantity of the toxic chemical present in the article.		
Supplier Notification:					
	act contains toxic chemicals, which may be re	eportable under EPCRA S	Section 313 Toxic Chemical Release Inventory (Form R) requirements.		
•	-		information is provided to enable you to complete the required reports:		
	······································				
	Toxic Chemical	CAS Number	Approximate % by Wt.		
	Lead	7439-92-1	60		
	Electrolyte	/ 135/ 72 1			
	(Sulfuric Acid (H2SO4/H2O))	7664-93-9	10 - 30		
	* Antimony	7440-36-0	2		
	•				
	* Arsenic	7440-38-2	0.2		
G 40 GT	Tin	7440-31-5	0.2		
See 40 CR	G Part 370 for more details.				
•	<u>^</u>	SIC Codes 20 through 39	, this information must be provided with the first shipment		
of each cal	lendar year.				
The Section	on 313 supplier notification requirement does	not apply to batteries, wh	nich are "consumer products".		
* Not pres	sent in all battery types. Contact your EnerSy	ys representative for addit	ional information.		



Power/Full Solutions	ECO #:	1001702
TSCA:		
TSCA Section 8b - Inventory Status: All chemicals comprising this prod	duct are either exempt or listed on the TSCA Inventory.	
TSCA Section 12b (40 CFR Part 707.60(b)) No notice of export will be	required for articles, except PCB articles, unless the Agency so requires in the	
context of individual section 5, 6, or 7 actions.		
TSCA Section 13 (40 CFR Part 707.20): No import certification require	ed (EPA 305-B-99-001, June 1999, Introduction to the	
Chemical Import Requirements of the Toxic Substances Control Act, Se	ection IV.A).	
RCRA:		
Spent Lead Acid Batteries are subject to streamlined handling requirement	ents when managed in compliance with 40 CFR section 266.80 or 40 CFR part 27.	3.
Waste sulfuric acid is a characteristic hazardous waste; EPA hazardous w	waste number D002 (corrosivity) and D008 (lead).	
CAA:		
EnerSys supports preventative actions concerning ozone depletion in the	e atmosphere due to emissions of CFC's and other ozone depleting	
chemicals (ODC's), defined by the USEPA as Class I substances. Pursua	ant to Section 611of the Clean Air Act Amendments (CAAA)	
of 1990, finalized on January 19, 1993, EnerSys established a policy to e	eliminate the use of Class I ODC's prior to the May 15, 1993 deadline.	
STATE REGULATIONS (US):		
Proposition 65:		
Warning: Battery posts, terminals and related accessories contain lead a	and lead compounds, chemicals known to the State of California to cause	
cancer and reproductive harm. Batteries also contain other chemicals kn	nown to the State of California to cause cancer. Wash hands after handling.	
INTERNATIONAL REGULATIONS:		
Distribution into Quebec to follow Canadian Controlled Product Regulat	tions (CPR) 24(1) and 24(2).	
Distribution into the EU to follow applicable Directives to the Use, Impo	ort/Export of the product as-sold.	
XVI. OTHER INFORMATION		
Revised: 04/07/2016		
NFPA Hazard Rating for Sulfuric Acid:		
Flammability (Red) $= 0$	Reactivity (Yellow) $= 2$	
Health (Blue) $= 3$	Sulfuric acid is water-reactive if concentrated.	
DISCLAIMER		
This Safety Data Sheet is created by the manufacturer to comply with the requirement	ts of 29 CFR 1910.1200. To the extent allowed by law,	
the manufacturer hereby expressly disclaims any liability to any third party, including	gusers of this product, including, but not limited to, consequential or	
other damages, arising out of the use of or reliance on this Safety Data Sheet		

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EnerSys.