

# SECTION 1: PRODUCT IDENTIFICATION

Product Name:	Maintenance Free Valve Regulated Lead Acid Battery: DJW, DJM, DJ, LHT, LHTF, PLX, PLH, PLC, PLH+C,XP, LP, LPC, LPL, LPF, LPX, LPS, LHR Series
Common Synonyms:	Sealed Lead Acid Battery, Non-dangerous battery, VRLA Lead Acid Batteries, VRLA Battery
DOT Description:	Battery, wet, non-spillable, electric storage battery
Chemical Family:	Electrical Battery Standby
Manufacturer's Name:	GLOBAL INDUSTRIAL
Address:	2505 MILL CENTER PARKWAY, BUFORD, GA 30518
E-mail:	vendorservice@globalindustrial.com
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Date Issued:	January 02, 2021

### **SECTION 2: Hazards identification**

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				
Eye Damage	Category 1				
Reproductive	Category 1A				
Carcinogenicity (lead compounds)	Category 1B	1			
Carcinogenicity (arsenic)	Category 1A	1			
Carcinogenicity (acid mist)	Category 1A				
Specific Target Organ	Category 2				
Toxicity (repeated exposure)	<u> </u>				
GHS LABEL:			·		
HEALTH		ENVIRONMENTAL	PHYSICAL		
Hazard Statements: DANGER!		Precautionary Statem	nents		
Causes severe skin burns and seriou	is eye damage.	Wash thoroughly after			
May damage fertility or the unborn ingested or inhaled.		Do not eat, drink or smoke when using this product.			
May cause cancer if ingested or inhaled.		Wear protective gloves protection/face protecti	/protective clothing, eye		
Causes damage to central nervous system, blood and kidneys through prolonged or repeated exposure.			ume/gas/mist/vapors/spray.		
May form explosive air/gas mixture charging.	during	Use only outdoors or ir	n a well-ventilated area.		
Extremely flammable gas (hydrogen	ı).	Contact with internal components may cause irritation or			
		severe burns. Avoid contact with internal acid.			
Explosive, fire, blast, or projection 1		Irritating to eyes, respiratory system, and skin.			
May cause harm to breast-fed child		Obtain special instructions before use.			
swallowed, inhaled, or contact with skin Causes		Do not handle until all safety precautions have been read			
skin irritation, serious eye damage.		and understood			
skin initiation, serious eye auniuge.			Avoid contact during pregnancy/while nursing		
skin ninudon, serious eye dunidge.					
		Keep away from heat./s smoking	sparks/open flames/hot surfaces. No		
Other Hazards		smoking	sparks/open flames/hot surfaces. No		
Other Hazards		smoking rect manual handling tech	sparks/open flames/hot surfaces. No niques and/or mechanical lifting		

Material name: Maintenance Free Valve Regulated Lead Acid Battery



Electrical	VRLA Batteries can contain large amounts of electrical energy which can give very high discharge currents and severe electrical shock if the terminals are short circuited.
Chemical	<ul> <li>The VRLA Battery presents no chemical hazards during the normal operation provided the recommendations for handling, storage, transport and usage are observed.</li> <li>VRLA Batteries emit hydrogen gas which is highly flammable and will form explosive mixtures in air from approx. 4% to 76%. This can be ignited by a spark at any voltage, naked flames or other sources of ignition.</li> <li>If the battery is broken and the internal components exposed, hazards may exist which require careful attention.</li> </ul>

# SECTION 3: HAZARDOUS INGREDIENTS/ IDENTITY INFORMATION

COMPONENTS	Approx. % by	CAS Number	Air Exposure Limits (µg/m3)		/m3)	LD50
	Wt.		ACGIĤ TLV	OSHA	NIOSH	ORAL
						(mg/kg)
Inorganic Lead/Lead	65%-75%	7439-92-1	150	50	10	
Compounds						
Tin	<0.5%	7440-31-5	2000	2000		
Calcium	<0.1%	7440-70-2				
Dilute Sulfuric Acid	~20%	7664-93-9	1000	1000	1000	2.14
Fiberglass Separator	~5%					
Case Material:	~5%	9003-56-9				
Acrylonitrile Butadiene						
Styrene (ABS)						

## SECTION 4: FIRST AID MEASURES FOR ACUTE EXPOSURE

This informa	tion is of relevance or	nly if the VRLA Battery has suffered damage, is broken and persons have				
	t with the internal con					
Plate Grids	Inhalation	Remove the person from exposure to fresh air. Seek advice from a medical				
and Active	and Active doctor					
materials	Ingestion	Wash out mouth with water and give plenty of water to drink. Do not induc				
	~ ~ ~ ~	vomiting. Seek advice from a medical doctor				
	Skin Contact	Wash off with plenty of water and soap to prevent accidental ingestion of inhalation. Seek medical advice if pain or rash does not reduce				
	Eye Contact	Immediately irrigate with eyewash solution or clean water for at least 10 minutes, holding the eyelids apart. Then take the person to hospital without further delay				
	Self-protection for	Eye protection (safety glasses or face shield), and heavy-duty gloves are				
	the first aider	required. In case of inhalation, a face mask or respirator may be required.				
Battery	SPEED IS ESSENT	AL - OBTAIN IMMEDIATE MEDICAL ATTENTION.				
Electrolyte	Inhalation	Remove the person from exposure to fresh air. If the person continues to				
		feel unwell seek advice from a medical doctor.				
	Ingestion	Wash out mouth with water and give plenty of water to drink. Do not induce vomiting. If the person continues to feel unwell seek advice from a medical				
		doctor.				
	Skin Contact	Drench with large quantities of water. Remove contaminated clothing an				
		place in water to dilute the acid. Continue to wash the affected area for at				
		least 10 minutes. Seek advice from a medical doctor				
	Eye Contact	SPEED IS ESSENTIAL - OBTAIN IMMEDIATE MEDICAL				
		ATTENTION				
		Immediately irrigate with eyewash solution or clean water for at least 10				
		minutes, holding the eyelids apart. Then take the person to hospital without				
	G 10	further delay.				
	Self-protection for	Eye protection (safety glasses or face shield), and heavy-duty gloves are				
~	the first aider	required. In case of inhalation, a face mask or respirator may be required.				
Case	Inhalation	Material can burn in a fire with toxic smoke and decomposition products.				
Material		Upon inhalation of decomposition products, keep patient calm, remove to				
		fresh air, and seek advice from a medical doctor. If a large quantity is				
		inhaled take the person to hospital.				



		Note to physician: Treat according to symptoms (decontamination, vital
		functions), no known specific antidote.
	Ingestion	Wash out mouth with water and give plenty of water to drink. Do not induce
		vomiting. If the person continues to feel unwell seek advice from a medical
		doctor.
	Skin Contact	Areas affected by molten material should be quickly placed under cold
		running water and a sterile protective dressing applied. Seek advice from a medical doctor.
	Eye Contact	May cause irritation or injury due to mechanical action and traces of Battery
		Electrolyte. Immediately irrigate with eyewash solution or clean water for at
		least 10 minutes, holding the eyelids apart. Then take the person to hospital
		without further delay
	Self-protection for	Eye protection (safety glasses or face shield), and disposable gloves are
	the first aider	required. In case of inhalation, a face mask or respirator may be required.
Separator	Inhalation	Remove patient from exposure to fresh air. If irritation persists, seek advice
Material		from a medical doctor.
	Ingestion	Wash out mouth with water and give plenty of water to drink. Do not induce
		vomiting. If the person continues to feel unwell seek advice from a medical
		doctor.
	Skin Contact	After contact with skin, wash immediately with plenty of soap and water. If
		irritation persists, seek advice from a medical doctor.
	Eye Contact	May cause irritation or injury due to mechanical action and traces of Battery
		Electrolyte. Immediately irrigate with eyewash solution or clean water for at
		least 10 minutes, holding the eyelids apart. Then take the person to hospital
		without further delay
	Self-protection for	Eye protection (safety glasses or face shield), and disposable gloves are
	the first aider	required. In case of inhalation, a face mask or respirator may be required.

### SECTION 5: FIRE-FIGHTING AND EXPLOSION HAZARD MEASURES

VRLA batteries	Flash Point: N/A	
	General Information:	VRLA Batteries emit hydrogen gas which is highly
	Explosion Hazard	flammable and will form explosive mixtures in air from
		approx. 4% to 76%. This can be ignited by a spark at any voltage, naked flames or other sources of ignition.
	the states	
		Batteries in use will be part of an electrical circuit and must be isolated from the power source before
		attempting to put out a fire. Switch the power OFF before
		disconnecting the batteries from the power our before
	•	<ul> <li>Damaged batteries may expose negative plates, grey in</li> </ul>
		colour, which may ignite if allowed to dry out. These
		plates may be wetted down with water after the battery
		has been removed from all electrical circuits.
	Suitable Extinguisher types	CO2; Foam; Dry Powder.
	Unsuitable Extinguisher types	Water extinguishers must never be used to put out an electrical
		fire.
	Hazardous combustion &	Carbon monoxide, Sulphur Dioxide, Sulphur Trioxide, Lead
	decomposition products	fume and vapour, toxic fumes from decomposition of battery
	_	case materials.
	Advice for fire-fighters	Full face visor or safety goggles; Respiratory equipment or
		self-contained breathing apparatus (SCBA); Full acid resistant protective clothing must be worn in fire-fighting conditions.
		protective clouning must be worn in me-fighting conditions.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

This information is of relevance only if the VRLA Battery has suffered damage and is broken.					
VRLA Battery		VRLA batteries are designed to be safe to handle and not to leak battery			
		electrolyte under normal conditions.			
		In case of accidental damage heavy-duty gloves are required to pick-up the			
		battery to protect against unseen electrolyte leakage			



Plate Grids and	Personal	Eye protection (safety glasses or face shield), and heavy-duty gloves are		
Active	Precautions	required. If the material is wet, a face mask or respirator is not required		
Materials	riccautions	If the material is dry, a face mask or respirator is required		
Materials	Class			
	Clean-up	Large, solid pieces may be picked up and bagged for recycling.		
	Methods	Never use a brush to sweep up debris; it may create Lead-dust in the air.		
		Wet clean the spill area to remove all traces of debris. Battery debris and		
		cleaning materials must be collected and placed in an inert sealed container		
		(e.g. self-seal plastic bag or bucket) for disposal.		
	Environmental	Do not allow material to enter a watercourse. Exposed Lead materials must		
	Precautions	be placed in an inert sealed container (e.g. self-seal plastic bag or bucket)		
		for disposal,		
Battery	Personal	Ensure suitable, acid resistant personal protective clothing (including		
Electrolyte	Precautions	heavy-duty gloves, safety glasses and respiratory protection) is worn during		
2		removal and clean-up of spillages.		
	Clean-up	Neutralise and absorb the spillage using soda ash, sodium bicarbonate		
	Methods:	(available from supermarkets), sodium carbonate or calcium carbonate		
	Small spillages	powder.		
	Simul spinages	Wet clean the spill area to remove all traces of debris. Battery debris and		
		cleaning materials must be collected and placed in an inert sealed container		
		(e.g. self-seal plastic bag or bucket) for disposal.		
	Clean-up	Large amounts of electrolyte spillage are unlikely with VRLA batteries		
	Methods: Large	since the electrolyte is fully absorbed in the active materials and separator.		
	spillages	Bund the spillage area using dry sand, earth, sawdust or other inert material.		
	spinages	Neutralise the electrolyte using soda ash, sodium bicarbonate (available		
		from supermarkets), sodium carbonate or calcium carbonate powder.		
		Wet clean the spill area to remove all traces of debris and electrolyte.		
		Cleaning materials must be collected and placed in an inert sealed container		
	<b>T</b>	(e.g. self-seal plastic bag or bucket) for disposal.		
	Environmental	Battery electrolyte must not be allowed to enter any drains or sewage		
	Precautions	system or water course.		
Case Material	Clean-up	Assume battery case material is contaminated and proceed as for Plate		
	Methods	Grids and Active Materials above.		
Separator	Clean-up	Assume battery case material is contaminated and proceed as for Plate		
Material	Methods	Grids and Active Materials above.		

# SECTION 7: HANDLING AND STORAGE

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Handling	Unless involved in recycling operations, do not breach the casing or empty the contents of the
	battery. Handle carefully and avoid tipping, which may allow electrolyte leakage. There may be
	increasing risk of electric shock from strings of connected batteries.
	Keep containers tightly closed when not in use. If battery case is broken, avoid contact with internal
	components.
	Keep vent caps on and cover terminals to prevent short circuits. Place cardboard between layers of
	stacked automotive batteries to avoid damage and short circuits.
	Keep away from combustible materials, organic chemicals, reducing substances, metals, strong
	oxidizers and water. Use banding or stretch wrap to secure items for shipping.
Storage	Store batteries in cool, dry, well-ventilated areas with impervious surfaces and adequate containment
	in the event of spills. Batteries should also be stored under roof for protection against adverse
	weather conditions. Separate from incompatible materials. Store and handle only in areas with
	adequate water supply and spill control. Avoid damage to containers. Keep away from fire, sparks
	and heat. Keep away from metallic objects could bridge the terminals on a battery and create a
	dangerous short-circuit.
Charging	There is a possible risk of electric shock from charging equipment and from strings of series
	connected batteries, whether or not being charged. Shut-off power to chargers whenever not in use
	and before detachment of any circuit connections. Batteries being charged will generate and release
	flammable hydrogen gas.
	Charging space should be ventilated. Keep battery vent caps in position. Prohibit smoking and avoid
	creation of flames and sparks nearby.
	Wear face and eye protection when near batteries being charged.
	* *

## SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION



VRLA Battery			
Control Parameters	There are no special control parameters for the handling, storage, installation of VRLA Batteries. VRLA Batteries emit hydrogen gas which is highly flammable and will form explosive		
	mixtures in air from approximately 4% to 76%. Never install VLRA Batteries in a gas- tight enclosure during storage, transport or usage.		
Exposure Control	There are no special exposure controls for the handling, storage, installation or use of VRLA Batteries.		
Personal Protection	When there is no evidence of damage or visible traces of liquid (electrolyte) or solid deposits on the batteries they may be handled safely without extra personal protective equipment.		
	Ensure electrical insulation equipment is used when installing batteries. (e.g. insulated mats and covers; insulated tools)		
	Remove ALL metallic objects from the person when working with VRLA Batteries: e.g. Jewellery (rings, watches, bracelets, necklaces), pens, torches, etc.		
	Where there are signs of damage or liquid (electrolyte) or solid deposits, rubber gloves and acid resistant clothing must be worn when handling the batteries and affected packaging to protect against the effects of any electrolyte that may be present.		
	If it is suspected that free electrolyte is present, then safety glasses must be worn, and if large amounts are present, chemical goggles or face shield should be used.		
UL CAUTIONARY STATEMENT	"Warning: Risk of fire, explosion, or burns. Do not disassemble; heat above 50 $^{\circ}$ C; or incinerate".		

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

VRLA Battery	The main components are listed in SECTION 2 above					
-	The undamaged product is a manufactured article in an inert plastic (ABS) case, which will burn					
				e battery types are made with Flame		
				eries carry the suffix 'FR' after the		
	battery type.	,	1	5		
The information		o the physical an	d chemical properties of the m	ain VRLA Battery components and		
		s published for re		<b>5</b> 1		
Plate Grids	Appearance	1	Safety-related data			
and	Form	Solid	Solidification point	327 °C		
Active	Colour	Grey or	Boiling point	1740 °C		
materials		brown	<b>6 1</b>			
	Odour	Odourless	Solubility in water	Very low (0.15mg/l)		
			Solubility in acid or	Yes, dependant on the strength of		
			alkaline solutions	solution.		
			Density (at 20 °C)	11.35 g/cm3		
			Vapour pressure (at 20 °C)	Undetectable		
Battery	Form	Liquid	Solidification point	-35 to -60 ℃		
Electrolyte	Colour	Colourless	Boiling point	Approx. 108 to 114 °C		
	Odour	Odourless	Solubility in water	Complete		
			Density (at 20 °C)	Variable up to 1.350 g/cm3		
			Vapour pressure (at $20 ^{\circ}{\rm C}$ )	10-20 mmHg		
Case Material	Appearance					
	Form	Solid	Softening point	>100 °C		
	Colour	Grey or black	Flash Point	>330 °C		
	Odour	Slight Odour	Solubility in water	Insoluble		
			Solubility in other solvents	Soluble in polar solvents, aromatic		
				solvents, chlorinated		
				hydrocarbons.		
			Density (at 20 °C)	1.07-1.4 g/cm3 Vapour pressure		
			(at 20 °C)	Undetectable		
Separator	Form	Fibrous	Solidification point	820 °C		
Material:		material	1.			
	Colour	White	Boiling point	>2500 °C		
	Odour	Odourless	Solubility in water	Insoluble		
		1	Density (at 20 °C)	2.23g/cm3		

Material name: Maintenance Free Valve Regulated Lead Acid Battery



Vapour pressure (at 20 °C) Undetectable

# SECTION 10: STABILITY AND REACTIVITY

VRLA Battery	Stability	Within the operational temperature range $-20$ to $+50$ °C the undamaged product is stable
Plate Grids and Active materials	Materials & Conditions to Avoid	Powdered Lead reacts violently with fused ammonium nitrate and sodium acetylide. Reacts violently when in contact with chlorine trifluoride.
Battery Electrolyte	Possibility of Hazardous Reactions	Dilution of the higher concentrated grades with water may liberate excessive heat. Highly reactive with metals and organic materials. On contact with metals, may generate hydrogen which forms explosive mixtures with air. Destroys organic materials such as cardboard, wood, textiles, etc.
	Hazardous Decomposition Product(s)	Sulphur oxides
Case Material:	Materials & Conditions to Avoid	To avoid thermal decomposition, do not overheat. Starts to decompose at temperatures >275 °C Powerful oxidising agents.
	Hazardous decomposition products	Monomers, other degradation products, traces of hydrogen cyanide.
Separator	Stability	Stable material.
Material:	Materials & Conditions to Avoid	Incompatible with Hydrofluoric acid and concentrated Sodium Hydroxide.
	Hazardous decomposition products	No hazardous polymerisation expected.

## SECTION 11: TOXICOLOGICAL INFORMATION

This information is of relevance only if the VRLA Battery has suffered damage and is broken.		
VRLA Battery		This information does not apply to the undamaged VRLA Battery. It is of relevance if the battery is broken and the components are released to the environment Exposure limits may vary according to national law and regulations.
Plate Grids: Metallic Lead, Lead alloys.	Acute Toxicity	Toxic by ingestion or inhalationChronic poisonLead is a poison that affects virtually every system in the bodySymptoms include fatigue, headaches, constipation, aching bonesand muscles, gastrointestinal tract disturbances and reducedappetiteSymptoms include fatigue, headaches, constipation, aching bonesand muscles, gastrointestinal tract disturbances and reducedappetite
Active materials: Lead dioxide.	Acute Toxicity	Toxic by ingestion or inhalationToxic by ingestion or inhalationChronic exposure to Lead compounds may lead to a build-up ofLead in the body, giving rise to a variety of health problems,including anaemia, kidney and liver damage, impaired eyesight,memory loss and CNS2 damage
Battery Electrolyte:	Corrosive	Corrosive, the more concentrated solutions can cause serious burns to the mouth, eyes and skin Harmful by ingestion and through skin contact

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	Inhalation	Mist is a severe irritant to the respiratory tract. Fluid build-up on the lung (pulmonary oedema) may occur up to 48 hours after exposure and could prove fatal
	Ingestion	Will immediately cause severe corrosion of and damage to the gastrointestinal tract
	Skin Contact	Causes severe chemical burns
	Eye Contact	Risk of serious damage to eyes. Causes severe burns. May cause prolonged or permanent damage or even total loss of sight. Mist will cause irritation
Case Material:		According to information available the product is not harmful to health provided it is correctly handled and processed according to the given recommendations.
Separator Material		Based on animal implantation and epidemiologic studies glass microfibers are thought to have some limited carcinogenic potential and as such are designated as Group 2B materials (IARC, US). The material should be treated as a category 3 carcinogen (Europe). Limited evidence of carcinogenic effect.

## SECTION 12: ECOLOGICAL INFORMATION

This information is	s of relevance only if the VR	LA Battery has suffered damage and is broken.
VRLA Battery		This information does not apply to the undamaged VRLA
		Battery. It is of relevance if the battery is broken and the
		components are released to the environment.
Plate Grids and	Metallic Lead, Lead	Chemical and physical treatment is required for the elimination of
Active materials	alloys and Lead dioxide	Lead from water. Waste water containing Lead must not be
	¥2	disposed of in an untreated condition.
	Ecotoxicity	Lead metal in massive form is not classified as hazardous to the aquatic environment, due to its low solubility and rapid removal from the water column. Inorganic lead compounds are considered to be acutely toxic in the environment and also to present a long- term hazard to aquatic organisms.



	Effect in the aquatic environment	Toxicity for fish: 96 h LC 50 > 100 mg/l Toxicity for daphnia: 48 h EC 50 > 100 mg/l Toxicity for alga: 72 h IC 50 > 10 mg/l
Battery Electrolyte	Ecotoxicity	In order to avoid damage to the sewerage system, the acid has to be neutralised by means of soda ash, sodium bicarbonate or sodium carbonate before disposal. Ecological damage is possible by change of pH. The electrolyte solution reacts with water and organic substances, causing damage to flora and fauna. The electrolyte may also contain components of Lead that can be toxic to aquatic environments.
	Persistence and Degradation	Remains indefinitely in the environment as sulphate.
Case Material	Elimination information:	No data available: insoluble in water
	Behaviour and environmental fate	Due to the consistency of the product, and its insolubility in water, it will apparently not be bio-available.
Separator		No data available: insoluble in water
Material		Not thought to pose any risk to the environment.

# SECTION 13: DISPOSAL CONSIDERATIONS

VRLA Battery	Europe	Spent (used) VRLA Batteries are subject to the requirements of the Batteries
		Directive 2006/66/EC on batteries and accumulators and waste batteries and
		accumulators. Spent (used) VRLA Batteries MUST be sent for recycling
		through an authorised contractor at the end-of-life.
		The WEEE Directive 2002/96/EC (Waste Electrical and Electronic
		Equipment) applies. Spent (used) VRLA Batteries MUST be removed from
		electrical and electronic equipment at the end-of-life.
	Worldwide	VRLA batteries contain inorganic Lead compounds and Sulphuric Acid
		which are damaging to the environment.
		Spent (used) batteries must be disposed of in an environmentally friendly
		manner in accordance with local national laws and regulations.
		VRLA batteries must not be dismantled, burnt or incinerated as a means of
		disposal.
		At the end of life VRLA batteries may still be electrically 'live' and contain
		a large amount of electrical energy. The same care and attention to safe
		handling should be taken as when handling new batteries. Particular care
		must be taken to avoid short-circuiting the battery terminals.
Plate Grids and	Europe	Metallic Lead and active materials (Lead Oxides) must be recycled.
Active materials	Worldwide	Disposal must be carried out in accordance with the European Hazardous
		Waste Directive 2008/98/EC.
Battery Electrolyte	Europe	Disposal must be carried out in accordance with the European Hazardous
		Waste Directive 2008/98/EC on the protection of the environment through
		criminal law
	Worldwide	Disposal should be in accordance with local, state or national legislation.
	General	Battery electrolyte is dilute Sulphuric Acid, the strength of which depends on
		the state of charge of the batteries. It must be neutralised before disposal. See
		SECTION 6 for clean-up and disposal advice.
Case Material		Do not dispose of this product into sewers, any ocean or water course in
		order to prevent marine animals and birds from ingesting.
		Recycling is encouraged.
		Disposal by controlled incineration or source landfill in accordance with
		local national laws and regulations may be acceptable.
Separator Material		Constitutes a special waste by virtue of hazardous substance content.
		Dispose of via approved landfill site. Disposal by controlled source landfill
		in accordance with local national laws and regulations may be acceptable.



#### SECTION 14: TRANSPORT INFORMATION

Proper Shipping Name	Batteries, wet, non-spillable		
Wet, non-spillable batteries do not need to be shipped and transported as fully-regulated Class 8			
Corrosive hazardous materials / dangerous goods when tested, packaged and marked in accordance			
with the following regulations:			
U.S. DOT:	Our non-spillable lead acid batteries are under the U.S. Department of		
0.5.201.	Transportation's (DOT) hazardous materials regulations but are excepted		
	from these regulations since they meet all of the following requirements		
	found at 49 CFR 173.159(f) and 49 CFR 173.159a		
	The batteries are excepted from regulation if they have been tested in accordance		
	with the vibration and pressure differential tests found in 49 CFR 173.159(f) and		
	"rupture test" found at 49 CFR 173.159a;		
	When offered for transport, the batteries must be protected against short circuits and		
	securely packaged in accordance with 49 CFR 173.159a; and		
	The batteries and outer packaging must be marked NON-SPILLABLE BATTERY		
	or NON-SPILLABLE as required by 49 CFR 173.159a		
ADR / RID	Land Transport: Not applicable		
IATA Dangerous Goods	Excepted from the dangerous goods regulations because the batteries meet the		
Regulations DGR	requirements of Packing Instruction 872 and Special Provisions A67 of the		
	International Air Transportation Association (IATA) Dangerous goods Regulations		
	and International Civil Aviation Organization (ICAO) Technical Instructions.		
	Battery Terminals must be protected against short circuits.		
	The words "NOT RESTRICTED", SPECIAL PROVISION A67" must be provided		
n moo	on an airway bill when air waybill is issued.		
IMDG	Excepted from the dangerous goods regulations for transport by sea because the		
	batteries meet the requirements of Special Provision 238 of the International		
	Maritime Dangerous Goods (IMDG CODE). Battery terminals must be protected against short circuits.		
IMO	Non-Hazardous for Sea Transport: Non-hazardous for sea transport.		
	ve are not met, then Batteries, wet, nonspillable (UN2800) are regulated as Class 8		
	als / dangerous goods by the U.S. Department of Transportation (DOT) and		
international dangerous goods regulatory authorities pursuant to the IATA Dangerous Goods Regulations and			
IMDG Code.			

### **SECTION 15: REGULATORY INFORMATION**

VRLA Battery	Required Markings	
Europe	X	Crossed-out wheeled bin indicating "SEPARATE COLLECTION" for all batteries and accumulators. Not to be disposed of with general domestic, commercial or industrial waste. Ref: The Batteries Directive 2006/66/EC
Europe	Pb	The Pb symbol indicates the heavy metal content of the battery and enables the Lead-Acid battery to be sorted for recycling. Ref: The Batteries Directive 2006/66/EC.
Worldwide	EF.	The International Recycling Symbol, required by law in many countries world-wide to facilitate the identification of secondary batteries and accumulators for recycling. Ref: IEC 61429 : 1995, Marking of secondary cells and batteries with the International Recycling Symbol ISO 7000-1135
U.S.	Proposition 65	Warning: Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer. Wash hands after handling.
Europe	EC Directives	Directive 2006/66/EC, on batteries and accumulators and waste batteries and accumulators. Paragraph (Recital) 29 states:



"Directive 2002/95/EC of the European Parliament and of the Council
of 27 January 2003 on the restriction of the use of certain hazardous
substances in electrical and electronic equipment does not apply to
batteries and accumulators used in electrical and electronic equipment."

Germany	
VwVwS Annex reference	Water hazard class (WGK) 2, hazard to waters (Classification
	according to VwVwS, Annex 4)
12th Ordinance Implementing the Federal	Is not subject of the 12. BlmSchV (Hazardous Incident
Immission Control Act - 12.BImSchV	Ordinance)

Netherlands	
SZW-lijst van kankerverwekkende stoffen	None of the components are listed
SZW-lijst van mutagene stoffen	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen –	Lead is listed
Borstvoeding	
NIET-limitatieve lijst van voor de voortplanting giftige stoffen –	Lead is listed
Vruchtbaarheid	
NIET-limitatieve lijst van voor de voortplanting giftige stoffen –	Lead is listed
Ontwikkeling	

Denmark			
Classification remarks	remarks Emergency management guidelines for the storage of flammable liquids must be		
	followed		
Recommendations Danish	Young people below the age of 18 years are not allowed to use the product		
Regulation	Pregnant/breastfeeding women working with the product must not be in direct		
	contact with the product		

US federal regulations	
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4)	Lead (CAS 7439-92-1): Listed.
	Sulphuric Acid (CAS 7664-93-9): Listed.
SARA 304 Emergency release notification	Sulphuric Acid (CAS 7664-93-9): Listed.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-	Lead (CAS 7439-92-1):
1050)	Reproductive toxicity
	Central nervous system
	Kidney
	Blood
	Acute toxicity
Superfund Amendments and Reauthorization Act of 1986 (SARA)	Hazard categories:
	Immediate Hazard – No
	Delayed Hazard - No
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance					
Chemical name	CAS	Reportable	Threshold	Threshold	Threshold planning
	number	Quantity	planning quantity	planning	quantity, upper
		(pounds)	(pounds)	quantity, lower	value (pounds)
		-	-	value (pounds)	
Sulphuric Acid	7664-93-9	1000 1000	1000 1000		
SARA 311/312 Hazardous chemical		No			

SARA 313 (TRI reporting)		
Chemical name	CAS number	% by wt.
Lead	7439-92-1	65%-75%
Sulphuric Acid	7664-93-9	~20%

Other federal regulations

Material name: Maintenance Free Valve Regulated Lead Acid Battery

# **GLOBAL** INDUSTRIAL SAFETY DATA SHEET

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Lead (CAS 7439-92-1)
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40	Sulphuric Acid (CAS 7664-93-9)
CFR 68.130)	

Safe Drinking Water Act (SDWA)	Not regulated.
Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number	Sulphuric Acid (CAS 7664-93-9) : 6552
Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))	Sulphuric Acid (CAS 7664-93-9): 20%WV
DEA Exempt Chemical Mixtures Code Number	Sulphuric Acid (CAS 7664-93-9): 6552

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance	
Lead (CAS 7439-92-1)	Listed: October 1, 1992
Sulphuric Acid (CAS 7664-93-9)	Listed: March 14, 2003
US - California Proposition 65 - CRT: Listed date/Developmental toxin	
Lead (CAS 7439-92-1)	Listed: February 27, 1987
US - California Proposition 65 - CRT: Listed date/Female reproductive toxin	
Lead (CAS 7439-92-1)	Listed: February 27, 1987
US - California Proposition 65 - CRT: Listed date/Male reproductive toxin	
Lead (CAS 7439-92-1)	Listed: February 27, 1987
US. California. Candidate Chemicals List. Safer	Lead (CAS 7439-92-1)
Consumer Products Regulations (Cal. Code Regs, tit.	Tin (CAS 7440-31-5)
22, 69502.3, subd.(a))	Sulphuric Acid (CAS 7664-93-9)

## **SECTION 16: OTHER INFORMATION**

HMIS®ratings	Health: 0
	Flammability: 1
	Physical hazard: 0
	Health: 0
NFPA ratings	NFPA ratings
	Flammability: 1
	Instability: 0
Disclaimer	The information in the sheet was written based on the best knowledge and experience
	currently available.
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