Section 1 : PRODUCT AND MANUFACTURER / SUPPLIER IDENTIFICATION

1.1 Product identification

Valve-regulated stationary sealed lead gas recombination battery

Trademark: NX

Product references : see Appendix I

1.2 Recommended and discourage uses

Recommended uses: the battery is intended for the storage of electrical energy and constitutes a power source for electrical and electronic equipment, notably:
Usage in standby mode: UPS, alarm systems and emergency lighting
Usage in cyclic mode: golf caddies, mobility devices and portable lighting systems

Discouraged uses: thermal starting motors that require ignition capacities exceeding the capacities of the battery

1.3 Safety data sheet supplier contact details

ALL BATTERIES
Address: Unit 2 Focus Park, Solihull, Ashbourne Way, Shirley, Solihull B90 4QU, UK
E-mail: customerservice@allbatteries.co.uk
tel. +44 121 506 8619

1.4 Emergency telephone number

National Poisons Information Service (NPIS) Number : 111
The number enables the contact details of all of the UK poison control centres to be obtained. These poison control and toxicovigilance centres provide free medical assistance, (excluding the cost of the call), 24 hours a day and 7 days a week.

Section 2: IDENTIFICATION OF DANGERS

VRLA batteries do not present a chemical risk in the course of normal functioning, provided that the handling, storage, transportation and utilization recommendations are respected.
The identified hazards will appear where the internal components of the battery are exposed.

2.1 In accordance with the CLP (CE) N°. 1272/2008 regulation

Hazard categories	
H314	Corrosion / skin irritation .1A
H360Fd	Repr.1A
H372	STOT RE1
H400	Acute aquatic 1
H410	Chronic aquatic 1

2.2 Labelling in accordance with the (CE) N°. 1272/2008 (CLP) Guideline



Hazard statement, (CLP)	
H314	Causes severe burns to the skin and damage to the eyes.
H360Fd	Can damage fertility. Can affect a fœtus
H372	Recognized hazard for serious risks to the organs, (indicating all of the affected organs, if known), following repeated exposures or prolonged exposure, (indicating the main exposure route if it is formally proven that no other exposure route could have led to the same danger).
H400	Highly toxic for aquatic organisms
H410	Highly toxic for aquatic organisms, causes long-term effects

Precautionary statement, (CLP)	
P201	Obtain the instructions before using
P202	Cannot be handled before having read and understood all of the security precautions.
P260	Do not inhale the aerosol dust / fumes / gas / hazes / vapors : aerosols
P264	Wash thoroughly after handling.

P270	Do not eat, drink or smoke whilst handling this product.
P273	Avoid release into the environment.

2.3 Other dangers

No other identified dangers

Section 3: COMPOSITION / INFORMATIONS ON THE COMPONENETS

3.1 Substances

CAS	Chemical name	% in mass
7439-92-1	Lead	60 - 70
1309-60-0	Lead Mono-oxide	<0,1
7440-70-2	Calcium	<0,15
7440-31-5	Sulphuric Acid	10 - 15
9003-56-9	ABS	5 - 10
	Separator	3 - 4

SECTION 4 : FIRST AID MEASSURES

4.1 First aid description

VRLA batteries do not present a chemical risk in the course of normal functioning, provided that the handling, storage, transportation and utilization recommendations are respected.
The information is relevant in the case where the internal components of the battery are exposed and in direct contact with people.

Components	Exposure	Action
Plate grids and active materials	Inhalation	Move the injured person to the open air. Seek medical attention
	Ingestion	Thoroughly wash the mouth with water and give a lot of water to drink. Do not induce vomiting. Seek medical attention
	Contact with the skin	Thoroughly wash with soap and water in order to prevent any accidental ingestion or inhalation. Seek medical assistance immediately if the pain or the skin rash does not reduce.
	Contact with the eyes	Irrigate immediately with an eye wash solution or with clean water, maintaining the eyelids separated for at least 10 minutes. Then immediately take the person to the hospital.
	Protection afforded to the person who provides first aid: it is necessary to wear eye protection, (safety glasses or protective mask), as well as heavy-duty gloves. In case of inhalation, a protective mask or breathing apparatus may become necessary.	
Battery electrolytes	Inhalation	Move the injured person to the open air. If the symptoms persist, seek medical assistance.
	Ingestion	Thoroughly wash the mouth with water and give a lot of water to drink. Do not induce vomiting. Seek medical attention
	Contact with the skin	Thoroughly rinse the affected area with water. Remove the contaminated clothing and place it in water to dilute the acid. Continue to wash the affected area with plenty of water for at least 10 minutes. Seek medical assistance.
	Contact with the eyes	Irrigate immediately with an eye wash solution or with clean water, for at least 10 minutes, maintaining the eyelids separated. Then immediately take the person to the hospital.
	Protection afforded to the person who provides first aid: it is necessary to wear eye protection, (safety glasses or protective mask), as well as heavy-duty gloves. In case of inhalation, a protective mask or breathing apparatus may become necessary.	
		Material can burn by releasing toxic fumes and decomposition products originating from combustion. In case of inhalation of

Casing material	Inhalation	decomposition products, keep the person calm, move them to fresh air, and seek medical assistance. If the person has inhaled large quantities, take the person to hospital. Note for the doctor: Treat in accordance with the symptoms, (decontamination, vital functions), no known specific antidote.

SECTION 5 : CONTROL MEASSURES AGINST FIRE AND AGAINST THE RISKS ASSOCIATED WITH EXPLOSIONS

VRLA batteries release hydrogen gas that is highly flammable and that forms explosive mixtures in the air at concentrations of between 4% to 76%. An explosion can be triggered by a spark at no matter what voltage, by direct flames or even by other ignition sources.
The batteries used become part of an electrical circuit and must be isolated from the power source before trying to extinguish the fire. Set the power to STOP, (OFF), before disconnecting the batteries from their electric power source.
The damaged batteries are likely to expose the coloured, (grey), negative plates that risk catching fire if they are left to dry. The plates must be dampened with water once the battery has been removed from all electrical circuits.

RISK OF EXPLOSION

5.1 Suitable extinction methods

Types of appropriate fire extinguishers: CO2; Foam; Dry powder.
Types of inappropriate fire extinguishers: Water extinguishers should never be used to extinguish an electrical fire.

5.2 Specific risks

Combustion dangerous decomposition & products: Carbon monoxide, Sulphur dioxide, Sulphur trioxide, lead fumes and vapors, toxic fumes originating from the decomposition of the battery casing materials.

5.3 Advice for firefighters

Full mask or safety glasses.
Respiratory protection equipment or self-contained breathing apparatus.
Fully protective acid resistant clothing must be worn in firefighting conditions.

SECTION 6 :MEASSURES TO BE TAKEN IN THE CASE OF ACCIDENTAL SPILLAGE

VRLA batteries do not present a risk of leakage in the course of normal functioning, provided that the handling, storage, transportation and utilization recommendations are respected.
In case of handling of a damaged battery and that presents a risk of leakage it is recommended to wear cut and electrolyte leakage resistant gloves.

6.1 Personal precautions, protective equipment and emergency procedures

Ensure that appropriate personal protective and acid resistant equipment are worn, (notably heavy-duty gloves, safety glasses and respiratory protection), during the recovery of spilled materials.

6.2 Precautions for the protection of the environment

Avoid the product being discharged into a waterway.

6.3 Containment and cleaning methods and equipment

Lead materials: Please note that a brush should never be used to sweep up the debris insofar as it could create lead dust in the air.
Wash the area where there has been an accidental spillage with water to remove all traces of the debris. The exposed lead materials must be placed in an inert, airtight container, (for example, a self-sealing plastic bag), for the purposes of their disposal, referred to in section 13.
Electrolyte: Neutralize and absorb the product that has been spilt by using soda, bicarbonate of soda, (products that are available in the supermarkets), sodium carbonate or calcium carbonate powder. Wash the area where the spillage of the product has taken place with water in order to remove all traces of the debris. The debris from the battery and the cleaning equipment must be collected up and placed in an inert, airtight container, (for example a hermetic bag or bucket), for the purposes of their disposal, see section 13.

SECTION 7 : HANDLING AND STORAGE

7.1 Precautions to be taken for handling without danger

Ensure that the battery shells are not in contact with each other.
Minimize the risk of short-circuiting by protecting the shells.

7.2 Conditions to ensure storage safety

Stock under a roof and protect against direct exposure to the sun and bad weather, including rain, snow and other bad weather.
Give particular attention to maintaining dry storage conditions in order to avoid all risk of electrostatic discharge.
Protect against all risk of physical damage or against all exposure to organic solvents and other incomputable materials.
Do not store VRLA batteries close to heat sources, direct flames or sparks.
Ensure that battery storage and loading areas are well ventilated.

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

There are no control parameters that exist for storage, handling and installation of lead VRLA batteries.

8.2 Exposure controls

There are no exposure control procedures for the storage, handling and installation of lead VRLA batteries.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

VRLA batteries in the course of storage, handling and usage conforming with guidelines present an inert aspect. The description of the physical and chemical properties of the substances contained in the batteries are of no interest in the context of this safety sheet.

SECTION 10 : STABILITY AND REACTIVITY

The indicators of the stability and reactivity concerning lead VRLA batteries considers that the internal components are not exposed.

10.1 Reactivity

No known risk of reactivity to other substances or mixtures.

10.2 Chelical Stability

The materials of which lead VRLA battery containers are made are deemed stable in a temperature range of between -20°C and +50°C

10.3 Possibility of dangerous reactions

In case of degradation of the container, certain exposed internal components can produce dangerous reactions, notably with regards to the electrolyte :

Whose dilution to the most concentrated levels with water is susceptible to release excessive heat:
That is highly reactive with other materials and organic materials.
That in contact with materials can release hydrogen that forms explosive mixtures with the air.
That destroy organic materials like cardboard, wood, textiles, etc.
That reacts strongly with sodium hydroxide and alkalis.

10.4 Conditions to avoid

To avoid the degradation of the lead VRLA batteries that could expose the internal components please note:

Avoid all overheating in order to eliminate the risk of thermal decomposition that is prone to happen with temperatures >275'C.

10.5 Incompatible materials

The lead VRLA battery containers degrade in the presence of powerful oxidizing agents.

10.6 Hazardous decomposition products

The decomposition of the lead VRLA battery containers and the exposure of the internal components can lead to the release of the following products:
The degradation of the container can release monomeric, other degradation products and traces of hydrogen cyanide
The decomposition of the electrolyte can release sulphur oxide

SECTION 11 : TOXICOLOGICAL INFORMATION

The toxicological information is valid in the context of an exposure to the battery components liable to occur only in the scenario of damage to the container.

Component	Toxicology	Health effects
Metallic lead Lead alloys	Toxic 	Amongst the symptoms to be found are tiredness, headache, constipation, bone and muscular pain, disorders of the gastrointestinal tract and a loss of appetite Blood concentrations of lead of 80 µg/dl and above are associated with both acute and chronic effects of lead poisoning.
Lead dioxide	Toxic 	Chronic exposure to lead compounds can lead to an accumulation of lead in the body, that can result in various health problems, notably anemia, liver and kidney damage, impaired vision, a loss of memory and central nervous system damage.
Battery electrolytes	Diluted sulphuric acid 	The inhalation of mist can be severely irritating for the respiratory tract. The possibility of the occurrence of accumulation of fluid on the lungs, (pulmonary oedema), up until 48 hours after exposure and could be potentially fatal. Ingestion immediately causes serious corrosion and serious damage to the gastrointestinal tract. Contact with the skin can cause serious chemical burns. Contact with the eyes causes serious burns, might cause prolonged or permanent damage or even complete loss of sight. The mist causes irritation.

SECTION 12 : ECOLOGICAL INFORMATION

The information on the impact on the environment are valid in the context of an exposure to battery components liable to occur only in the scenario of damage to the container.

Component	Toxicology	Effects on the environment
Metallic lead Lead alloys		Chemical and physical processing is required to remove lead from water. Waste water containing lead must not be removed without having been treated appropriately. Metallic lead in massive form is not classified as dangerous for the aquatic environment because of its low solubility and its quick elimination from the water column. The components of inorganic lead are considered as extremely toxic in the environment and also present long-term danger for aquatic organisms. Effect on the aquatic environment: Toxicity for fish: CL50 96 h > 100 mg/l Toxicity for dolphins: CE50 48 h> 100 mg/l Toxicity for algae: IC50 72 h> 10 mg/l
Battery electrolytes		In order to avoid damages effecting the sewerage network, acid must be neutralized by the means of soda, bicarbonate of soda or sodium carbonate before its elimination. Environmental damages are possible in the case of Ph changes. The electrolyte solution reacting with water and organic substances, could cause damages to both flora and fauna. The electrolyte may also contain lead components that could be toxic for the aquatic environment.

SECTION 13 : CONSIDERATIONS RELATING TO THE ELIMINATION

Used lead VRLA batteries are subject to the requirements of the 2006/66/EC directive, (on batteries and accumulators and on used batteries and accumulators). The VRLA batteries MUST be sent for recycling via an approved provider.

SECTION 14 : TRANSPORT

We hereby certify that all NX Valve Regulated Lead Acid batteries (VRLA) are compliant with the "UN2800 Batteries, wet, non-spillable, electric storage " classification.
Pressure differential and vibration tests and trials described in the ADR packing instructions and the IMDG code, special provision 238, DOT, 49 CFR 173.159 (f), IMO / IMDG and ICAO / IATA and special provisions A48, A67, A164 and A183, as well as the flow test, were validated.
NX batteries are therefore not subject to the provisions of ADR, IMO / IMDG and IATA for transport.

SECTION 14 : INFORMATION RELATING TO TRANSPORTATION

14.1 Land transportation

UN Code :	UN2800
ADR / RID Classification:	Class 8
Official transportation name :	BATTERIES, WET, NON-SPILLABLE ELECTRIC STORAGE
Tunnel Code:	E

14.2 Maritime transportation

UN Code :	UN2800
IMDG Classification:	Class 8
Official transportation name :	BATTERIES, WET, NON-SPILLABLE ELECTRIC STORAGE
EmS :	F-A, S-B

14.3 Air transportation

UN Code:	UN2800
IATA Classification:	Class 8
Official transportation name :	BATTERIES, WET, NON-SPILLABLE ELECTRIC STORAGE
A48 Special provision :	Packaging tests are not considered to be necessary
A67 Special provision:	NX VRLA lead batteries fulfill the requirements of the 872-packaging directive.

SECTION 15 : REGULATORY INFORMATION

The NX VRLA Lead batteries satisfy the regulatory requirements of the 2006/66/EC directive on batteries.

SECTION 16 : OTHER INFORMATION

No other information in the context of the REACH CE N°. 1907/2006 regulation

ANNEXE I : LIST OF REFERENCES CONCERNED BY THE CURRENT FDS

Company code	Designation
AMP9005	AGM NX General Purpose 12V 7Ah T1 Lead Battery
AMP90100	NX Cyclic 12V 24Ah F-M5 Watertight Gel Lead Battery
AMP90101	AGM NX General Purpose IFR 12V 18Ah T12 Lead Battery
AMP90102	AGM HR IFR 12V 24Ah T12 Lead Battery
AMP90104	AGM HR 12V 5.4Ah T2 Lead Battery
AMP90105	AGM Standby use 12V 7Ah T1 Lead Battery
AMP90106	AGM HR 12V 9Ah T2 Lead Battery
AMP90107	AGM S 12V-33Ah 12V 33Ah T6 Lead Battery
AMP90107EDF	AGM S 12V-33Ah 12V 33Ah T6 Lead Battery
AMP90108	AGM S 12V-18Ah 12V 18Ah F-M5 Lead Battery
AMP90111	AGM 12V-2.3Ah Standby use 12V 2.3Ah T1 Lead Battery
AMP90113	AGM S 12V-55Ah 12V 55Ah T6 Lead Battery
AMP90114	AGM S 12 V-7 Ah FR 12V 7Ah T1 Lead Battery
AMP90115	AGM S 12V-45Ah FR 12V 45Ah T6 Lead Battery
AMP9015	AGM S 6V-4.5Ah 6V 4.5Ah T1 Lead Battery
AMP9017	AGM S 12V-100Ah 12V 100Ah F-M8 Lead Battery
AMP9018	AGM S 6V-14Ah 6V 14Ah TH Lead Battery
AMP9019	AGM S 12V-1.6Ah 12V 1.6Ah TU Lead Battery
AMP9020	AGM S 12V-2.3Ah 12V 2.3Ah TU Lead Battery
AMP9021	AGM S 6V-2.8Ah 6V 2.8Ah T1 Lead Battery
AMP9022	AGM S 6V-3.2Ah 6V 3.2Ah T1 Lead Battery
AMP9023	AGM S 12V-2.2Ah 12V 2.2Ah T1 Lead Battery
AMP9025	AGM S 12V 2.6Ah 12V 2.6Ah T1 Lead Battery
AMP9026	AGM S 12V-160Ah 12V 160Ah T11 Lead Battery
AMP9029	AGM C 12V-33Ah 12V 33Ah F-M6 Lead Battery
AMP9030	AGM S 6V-10Ah FR 6V 10Ah T2 Lead Battery
AMP9031	AGM S 6V-12Ah FR 6V 12Ah T2 Lead Battery
AMP9032	AGM S 12V-0.8Ah FR 12V 0.8Ah C01 Lead Battery
AMP9033	AGM S 12V-1.2Ah FR 12V 1.2Ah T1 Lead Battery
AMP9034	AGM S 12V-2.3Ah FR 12V 2.3Ah T1 Lead Battery
AMP9035	AGM S 12V-3.2Ah FR 12V 3.2Ah T1 Lead Battery
AMP9036	AGM S 12 V-4.5 Ah FR 12V 4.5Ah T1 Lead Battery
AMP9037	AGM S 12 V-7 Ah FR 12V 7Ah T1 Lead Battery
AMP9038	AGM S 12V-12Ah FR 12V 12Ah T2 Lead Battery
AMP9039	AGM S 12V-18Ah FR 12V 18Ah T3 Lead Battery
AMP9040	AGM HR 12V-24Ah FR 12V 24Ah T10 Lead Battery
AMP9041	AGM S 12V-45Ah FR 12V 45Ah T6 Lead Battery
AMP9043	AGM S 12V-24Ah FR 12V 24Ah T12 Lead Battery
AMP9045	AGM S 12V-75Ah FR 12V 75Ah T6 Lead Battery
AMP9046	AGM S 4V-3.5Ah FR 4V 3.5Ah T1 Lead Battery
AMP9047	AGM S 12V-5.4Ah 12V 5.4Ah T1 Lead Battery
AMP9049	AGM S 6V-1.2Ah FR 6V 1.2Ah T1 Lead Battery
AMP9050	AGM C 12V-18Ah 12V 18Ah G-M6 Lead Battery
AMP9051	AGM C 12V-13Ah 12V 13Ah T2 Lead Battery

AMP9055	AGM C 12V-70Ah 12V 70Ah F15 Lead Battery
AMP9056	AGM C 12V-20Ah 12V 20Ah F-M5 Lead Battery
AMP9062	G 12V-31Ah 12V 31Ah Watertight Gel Lead Battery
AMP9063	G 12V-38Ah 12V 38Ah Watertight Gel Lead Battery
AMP9064	G 12V-50Ah 12V 50Ah F-M6
AMP9065	G 12V-70Ah 12V 70Ah Watertight Gel Lead Battery
AMP9066	AGM S 12V-4Ah L 12V 4Ah T1 Lead Battery
AMP9067	G 12V-200Ah 12V 200Ah Watertight Gel Lead Battery
AMP9068	G 12V-140Ah 12V 140Ah Watertight Gel Lead Battery
AMP9069	G 12V-100Ah 12V 100Ah Watertight Gel Lead Battery
AMP9070	AGM F 12V-75Ah 12V 75Ah Lead Battery
AMP9071	AGM F 12V-100Ah 12V 100Ah F-M6 Lead Battery
AMP9082	AGM S 6V-7.2Ah 6V 7.2Ah T1 Lead Battery
AMP9083	AGM S 6V-1.0Ah 6V 1Ah T1 Lead Battery
AMP9085	AGM S 12V-65Ah 12V 65Ah T6 Lead Battery
AMP9086	AGM C 6V-13Ah 6V 13Ah T2 Lead Battery
AMP9087	AGM S 12V-55Ah 12V 55Ah T9 Lead Battery
AMP9088	AGM S 12V-8.5Ah 12V 8.5Ah T2 Lead Battery
AMP9090	AGM S 12V-24Ah 12V 24Ah T12 Lead Battery
AMP9091	AGM L 12V-38Ah 12V 38Ah T12 Lead Battery
AMP9098	AGM S 12V-7Ah 12V 7Ah T1 Lead Battery
AMP9099	AGM L 12V-26Ah FR 12V 26Ah T12 Lead Battery