



PROJECT ITALIA srl
Via Soastene, 12 - S.S.500 - Z.I.
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P.IVA/VAT/TVA IT02245700246

MATERIAL SAFETY DATA SHEET

Lead-acid Batteries

Conforming to the 28/01/1992 Legislative Decree and successive amendments
18/12/2006 Regulation EEC/EU No 1907

1. PRODUCT IDENTIFICATION AND MANUFACTURER

Identification of the substance or preparation : Lead-acid battery

Use of the substance or preparation: Starter batteries for cars and vehicles
Industrial batteries for motive power and standby applications

Company: PROJECT ITALIA SRL
Via Soastene 12 36040 BRENDOLO (VI) Italy
Telephone +39 0444 401557 Fax +39 0444 405334

E-mail address of the competent person responsible for the safety data sheet:
project@project-italia.com

Emergency telephone (Italy): Bologna - Poison Center, Ospedale Maggiore
051-6478955, 24 hours

2. SAFETY WARNINGS AND HAZARDS

Using correctly intact battery: do not exist special hazards to humans and the environment.

Danger of Explosion:

An explosive mixture of oxyhydrogen gas occurs when charging batteries. Therefore do not smoke, do not use naked flames or fires, and do not cause sparks in the immediate vicinity of the battery. Avoid short-circuits in the battery terminals. Always use anti-static materials when cleaning. Do not store the battery in sealed containers; always store in a cool and well-ventilated area away from direct sunlight and heat sources.

Corrosive Hazard:

Lead-acid batteries contain sulphuric acid diluted in a water solution which is corrosive and harmful to skin and eyes. Specific gravity 1.22 + 1.30 kg/l.

Health Hazard:

There are no hazards to health if the battery is used and handled in the correct way. The battery however contains lead compounds which are harmful if swallowed or inhaled.

3. COMPOSITION - INFORMATION ON INGREDIENTS

Component	% in weight	CAS no.	EC no.	Symbols	R/S-Phrases
Lead metal and compounds	60-70	7439-92-1	231-100-4	T	R20/22; R33; R61 R62; R52/53; S53; S45; S60;S61
Sulphuric acid Solution	20-30	7664-93-9	231-639-5 16-020-00-8	C	R35 S2; S26; S30
Not applicable for dry charged cells.					
Thermoplastic Polymers	6-9	--	---	--	--

4. FIRST AID MEASURES

First aid concerns above all exposure to the sulphuric acid solution (electrolyte) as all the other battery components are solid and are not considered hazardous if the battery is used and handled properly.

a) Inhalation:

Probability of exposure by inhalation is low, however in the event this should occur move the injured person away from the contaminated area to fresh air. If the injured person has respiratory problems, seek medical advice immediately.

b) Skin contact:

If the acid comes into contact with skin thoroughly wash the contaminated area with plenty of clear water. Remove all contaminated clothing. If skin irritation persists, seek medical advice immediately.

e) Eye contact:

If acid comes into contact with eyes thoroughly wash eyes with plenty of clear water. Keep eyes open when rinsing. Seek medical advice immediately.

d) Swallowing:

Rinse mouth with plenty of clear water and drink water immediately. Do not induce vomiting. Seek medical advice immediately.

- Specific first aid facilities and equipment to be made available: bottles for eye washing or emergency eye washing fountains; showers .

5. FIRE-FIGHTING SAFETY MEASURES

Lead-acid batteries are not highly combustible, the only hazard of combustion are the thermoplastic polymers which are a 6-9% of battery weight.

Always wear suitable breathing apparatus when extinguishing a fire.

- a) Suitable fire extinguishers:
Dry powder, foam and CO₂.
- b) Incorrect fire extinguishers:
Do not use water extinguishers as water causes an exothermic reaction (heat release) when it comes into contact with acid.

6. MEASURES IN CASE OF ACCIDENTAL RELEASE

- a) Personal precautions:
In case of battery acid spillage always wear suitable PPE (personal protective equipment) to avoid the electrolyte coming into contact with skin and eyes such as rubber gloves, rubber boots protective anti-acid safety glasses and overalls.
- b) Environmental protective measures:
Always keep electrolyte or lead dust away from sewers, water drains and water sources.
- e) Methods for cleaning up:
Neutralise with sodium or calcium carbonate.
To contain spillage use sand, earth or other similar absorbing material.
Do not use rags or sawdust.
Do not use water (although the sulphuric acid is diluted in a water solution when it comes into contact with water it may have an exothermic (heat release) reaction).

7. HANDLING AND STORAGE

Keep batteries away from heat sources, sparks or naked flames.
Do not store batteries in sealed containers; store in a cool and well-ventilated area away from direct sunlight and heat sources.

8. PERSONAL PROTECTION / EXPOSURE CONTROL

Except for safety shoes, all other PPE (personal protective equipment) are for protection against exposure to electrolyte as other battery components are solid and are not considered hazardous (unless lead compounds are voluntarily or accidentally swallowed).

Recommended PPE (personal protective equipment):
anti-acid rubber gloves (resistant to sulphuric acid); safety glasses (mask or visor); anti-acid overalls; rubber boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state of the product : solid with a prismatic shape

Electrolyte: Sulphuric acid in a water solution.
Corrosive
Specific gravity 1.22-1.30 kg/l.
Odourless .
Non-flammable.

10. STABILITY AND REACTIVITY

This product is normally stable and non-reactive.
The amount of hydrogen and oxygen gas fumes released into the surroundings can be neglected.
However, always avoid naked flames or sparks in vicinity of the battery.

11. TOXICOLOGICAL INFORMATION

Not applicable.

12. ENVIRONMENTAL INFORMATION

The electrolyte solution reacts with water and organic substances causing damage to flora and fauna. Batteries also contain soluble lead compounds which can be toxic for the aquatic environment.

13. WASTE MANAGEMENT

Used lead-acid batteries are classified as "hazardous waste products" and by law it is obligatory to dispose of them through authorised waste management centres for recycling. It is strictly forbidden to dispose of used batteries in the environment such as landfills, lakes or other unauthorised locations.
For further information please contact your local waste management centre.

14. TRANSPORT REGULATION

a) Flooded Lead-Acid batteries

By land (ADR/RID - road/railway):

Proper Shipping Name	BATTERIES, WET, FILLED WITH ACID electric storage
UN No.	UN2794
Classification ADR/RID	80
Hazard Class	8
Packing Group ADR	Not assigned
Label required	Corrosive
ADR/RID: new and spent batteries are exempt from all ADR/RID (special provision 598)	

By sea (IMDG Code): Proper
Shipping Name "IMDG UN No.



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IMDG Hazard Class

Packing Group

IMDG Emergency Medical Schedules - EmS

Label required

BATTERIES, WET, FILLED WITH ACID electric storage

UN2794

8

III

F-A, S-B

Corrosive

Batteries are considered "NON HAZARDOUS GOODS" if shipped dry charged (i.e. without acid filling).

By air (ICAO/IATA-DRG):

Proper Shipping Name

ICAO/IATA UN No.

ICAO/IATA Hazard Class

ICAO/IATA Packing Group

Label required

BATTERIES, WET, FILLED WITH ACID electric storage

UN2794

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III

Corrosive



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b) VRLA batteries only

By land (ADR/RID, U.S. DOT - road/railway):

Proper Shipping Name	BATTERIES, WET, NON SPILLABLE electric storage
UN No.	UN2800
Classification ADR/RID	80
Hazard Class	8
Packing Group ADR	Not assigned
Label required	Corrosive

ADR/RID: new and spent batteries are exempt from all ADR/RID (special provision 598)

By sea (IMDG Code):

Proper Shipping Name	BATTERIES, WET, NON SPILLABLE electric storage
IMDG UN No.	UN2800
IMDG Hazard Class	8
Packing Group	III
IMDG Emergency Medical Schedules - EmS	F-A, S-B
Label required	Corrosive

If non spillable batteries meet the Special Provision 238, they are exempted from all IMDG codes provided that the batteries' terminals are protected against short circuits.

By air (ICAO/IATA-DRG):

Proper Shipping Name	BATTERIES, WET, NON SPILLABLE electric storage
ICAO/IATA UN No.	UN2800
ICAO/IATA Hazard Class	8
ICAO/IATA Packing Group	III
Label required	Corrosive

If non spillable batteries meet the Special Provision A67, they are exempted from all ICAO/IATA-DRG codes provided that the batteries terminals are protected against short circuits.

15. REGULATORY INFORMATION

Classification and labeling

Risk phrases (they are purely indicative as **not applicable to this product**, but only to a part which is the electrolyte):

R35 causes severe burns

S-phrases (safety phrases):

S2 keep out of reach of children

S16 keep away from sources of ignition – No smoking.

S26 in case of contact with eyes, rinse immediately with plenty of water and seek medical advice



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S30 never add water to this product.

Where applicable, to make reference to normative following:

- L. 135/83;
- D. Lgs. 334/1999;
- D.P.R. 250/89;
- D.P.R. 303/56;
- D. Lgs. 152/2006;
- D. 2006/121/CE;
- R. CE n. 1907/2006.

16. OTHER INFORMATION

The information contained herein is correct to the best of our knowledge at the time of issue. Such information refers to the specific product described herein and is not to be considered as guarantee of product quality and performance.

The user is however responsible for determining product suitability, accuracy, and completeness of the information provided herein for battery applications.