

## CHEMICAL SAFETY DATA SHEET

### 1- IDENTIFICATION OF SUBSTANCE AND COMPANY

#### 1.1 - Identification of product

- Name : Batteries filled with acid
- Designation or trade name : Batteries wet charged
- Chemical Name of the acid : Aqueous sulphuric acid solution
- C.A.S Registry number : 7664 – 93 – 9
- EINECS number : 231 – 639 – 5
- Molecular weight : 98,08 (pure acid)
- Empirical formula : H<sub>2</sub>SO<sub>4</sub>
- Structural formula : H-O – S – O-H



#### 1.2 - Company Identification

- Name: PROJECT ITALIA SRL.
- Address: Via Soastene 12, I-36040 BRENDOLA VICENZA
- Telephone n°: +39 0444 401557 Fax +39 0444 405334

#### 1.3 - Emergency calls

- Telephone n° (emergency calls) of the company : see heading 1.2
- And/or
- Official advisory body : N. Av.
- Telephone n° : N. Av.

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### 2- COMPOSITION / INFORMATION ON INGREDIENTS / CLASSIFICATION

Sulphuric acid 37-38% R35 Causes severe burns

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All information thereafter marked with a), b), etc, is referred to the previous ingredients.  
Decoding: N.Ap. = Not Applicable N.Av. = Not Available N.D. = Not dangerous for the named rules T.I.= Technically Impossible

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### 3- HAZARD IDENTIFICATION

#### - Critical hazards to man

Effects and symptoms:

May give irritation to respiratory tract in case of inhalation of vapour or mist (depending on the concentration). In serious cases: perforation of internal organs. Repeated/prolonged exposures may cause chronic bronchitis. May give a progressive loss of sensitivity to irritating actions (see also heading 4)

- Critical hazards to the environment  
(see heading 12)



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#### 4- FIRST-AID MEASURES

- NECESSARY doctor's attention

- *Inhalation* (see also heading 7)

Symptoms and expected delayed effects:

irritant effect on throat, oesophagus and air passage, cough and unconsciousness.

Afterwards: rhinitis, bronchitis, pulmonary damages.

First aid action:

Move patient from contaminated area. Persons who have inhaled vapours of substance must lie down and keep quite still.

Seek medical treatment when anyone has symptoms apparently due to inhalation of vapours. Apply artificial respiration only if patient is not breathing. Do not use mouth to mouth resuscitation.

Send a doctor for the best treatment of respiratory apparatus.

- *Skin contact*

Symptoms and unexpected delayed effects:

Burning and painful sensation by possible necrosis. Symptoms like those of severe burns in case of contact of a large area of skin.

First aid and action:

Remove contaminated clothing and drench affected skin with plenty of water. It is necessary a medical specialist treatment.

- *Eye contact*

Symptoms and expected delayed effects

Irritation and painful sensation by possible corneal damages.

Loss of sight in serious cases.

First aid action:

Rinse immediately eyes with plenty of water. Seek immediately medical advice.

- *Ingestion:*

Symptoms:

Painful sensation to mouth, throat and oesophagus for caustic strong effect.

Expected delayed effects:

N. Ap.

First aid action:

Rinse mouth with water. Provide water to drink to dilute gastric contents. Do not induce vomiting. Seek immediate medical advice.

- Specific and immediate treatment means to be available at the work place:  
Eyewash bottle, eye-wash fountains or douches.

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#### 5- FIRE / FIGHTING MEASURES

- *Suitable extinguishing media:*

Not flammable but may react with combustible substances creating fire. May attack many metals forming hydrogen (flammable gas)



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Keep containers cool by spraying with water if exposed to fire.

- *Extinguishing media which must not be used for safety reasons:*  
N. Ap.
- *Special exposure hazards arising from the substances or protective equipment for firefighters:*  
N. Ap.

### 6- ACCIDENTALS REALEASE MEASURES

- *Personal precautions:*  
Delimit the danger area. Contain leaking with sand, earth or other suitable material. Consult an expert. Depending on situation put on suitable personal device (see heading 8)
- *Environmental precautions:*  
Prevent liquid entering sewers, basements and workpits.
- *Methods of cleaning:*  
Contain/absorb leaking with sand or earth. Wash with large amount of water, send, if possible, to container basins for neutralization (see also heading 12)

### 7- HANDLING AND STORAGE

#### 7.1 – Handling

Avoid contact with eyes and skin and inhalation of vapour / mist.

#### 7.2 – Storage:

Keep in fresh and well ventilated place, away from heat and incompatible substances. Rooms should have anti-acid pavement properly inclined so to allow the pick up of leaking. Outside big tanks should have suitable container basins. Suitable materials are lead, lead-iron, carbon steel, plastic. Explosion-proof electrical plants, etc, (Hydrogen explosion hazard)

### 8- ESPOSURE CONTROLS / PERSONAL PROTECTION

- *Technical precautions / engineering measures:*  
Work in well ventilated rooms and putting in practice suitable system for aspiration of vapour or mist. Wash tanks carefully before entering into for any works (repeated washing, neutralization and degassing with inert).
- *Specific control parameters:*
  - A) Environmental:
    - A.C.G.I.H. (Tab 96)
    - Limit values
    - TLV-TWA: 1mg/m<sup>3</sup>; TLV-STEL: 3mg/m<sup>3</sup>
  - B) Medical:
    - As required by rules and regulations of each interested country





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## 10- STABILITY AND REACTIVITY

- *Condition to avoid:*  
Elevated temperatures, strong bases and strong oxidizing
  - *Materials to avoid:*  
Alcaline and reducing substances (reacts producing heat)  
Contact with nitrates, picrates, carbides and permanganates may cause fire and explosion.  
Reaction with salts formed by volatile acid produce the corresponding acid (e.g. HCN from cyanides)
  - *Hazardous decomposition:*  
Contact with metals may liberate hydrogen (flammable gas)  
Decomposes in a fire or by heat off toxic fumes (Sox)
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## 11- TOXICOLOGICAL INFORMATION

- *Dangerous effects from exposure to preparation:*  
Irritating effect and sensitization for long and repeated contact with skin
- *Symptoms:*  
(see heading 4)
- *Information on the different routes of exposures:*  
(referred to pure acid)
 

<i>Inhalation:</i>	
LC50 (rat)	: 510 mg/cubic meter (2h)
LC50 (mouse)	: 320 mg/cubic meter (2h)
 <i>Ingestion:</i>	
LD50 (rat)	: 52.140 mg/kg
 <i>Skin and eye contact:</i>	
severe irritant	
- *Delayed and immediate effects from short and long term exposure:*

*Sensitization:*  
Not referred evidence of such effect

*Carcinogenicity:*  
Not referred evidence of such effect by Official Organisation or national and international Offices

*Mutagenicity:*  
Not referred evidence of such effect by Official Organisation or national and international Offices



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Reproductive toxicity:

Not referred evidence of such effect by Official Organisation or national and international Offices

Narcosis:

May cause unconsciousness

## 12- ECOLOGICAL INFORMATION

Use preparation according to practice avoiding to release it into the environment.

- *Aquatic toxicity and other data relating to ecotoxicity:*  
LD 24h (clean water) : 24.5 ppm on BLUEGILL (H<sub>2</sub>SO<sub>4</sub> at 98%)
- *Effects, behaviour and environmental fate:*  
Mobility: N. Ap.  
Persistence and degradability: N. Ap.  
Bioaccumulation potential: N. Av.

## 13- DISPOSAL CONSIDERATION

- *Description and handling of residues:*  
Surplus and wastes must be handled with precautionary measures and suitable equipment for personal protection specified in heading 7 and 8
- *Appropriate methods of disposal (also for packaging):*  
Neutralize with sodium hydroxide (dilute solution)
- *Community provisions relating to waste:*  
Directives 75/442/EEC and 78/319/EEC
- *National or regional provisions, in force:*  
As required by rules and regulations of each interested country

## 14- TRANSPORT INFORMATION

- UN number: 2794
- Packing group: III
- Classifications:  
ADR/RID Not ADR  
IMO – IMDG Class: 8 Label: 8  
UN number: 2794  
Packing group: III  
MARPOL: No marine pollutant  
EmS: F-A, S-B

## OTHER INFORMATION

- Particular precautions:  
Internal traffic within the company:  
Keep containers close



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- Complementary information: N. Ap.
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#### 15- REGULATORY INFORMATION

- Risk phrases (R)  
R 35 Causes severe burns
  - Safety advice (S)  
S 2 keep out of reach of children  
S 26 in case of contact with eyes, rinse immediately with plenty of water and seek medical advice
  - Eventual other information: N. Ap.
  - Any other national measures: N. Ap.
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#### 16- OTHER INFORMATION

(important to worker's safety and health)

Take care of workers' training giving them all instructions on the preparation.

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Data and information contained in the present Safety Data Sheet are based on our available knowledges at last revision date. We cannot exclude that, in particular conditions, additional measures may be necessary during the use of preparation that customers have selected as suitable for their specific purposes