Release date : 13/01/2016
Release nr. : 6

Symbol of Quality & Performance

SAFETY DATA SHEET

According to regulation UE n. 453/2010 – regulation 1907/2006/CE Art.31

Section 1: Identification of the product or mixture and of the producer

1.1 Identification of the product

Commercial Id: Lead acid Battery, wet and filled with acid

1.2 Proper usage identified of the product or mixture and usage to be avoided

Usage of product/component: starting of the internal combustion engine of vehicles

Information about safety data sheet's supplier Producer / supplier :

Kyoto Japan Tire (International) S.A
Commercial Office: 1 Carrefour de Rive
1207 Geneva - Switzerland
Tel. +41.22.789 32 00
Email: geneva@kyotojap.com
www.kyotojap.com

1.3 Emergency number

Centro Antiveleni Ospedale Cà-Granda – Niguarda (MI) -
Italy Tél: +39 02 64 44 70 53
Emergency : +39 02 66 10 10 29

Section 2: Dangers Identification

2.1 Classification of product or mixture

Classification as per regulation (CE) n. 1272/2008


GHS05 Corrosion


GHS08 Danger for inhalation, danger category 1


GHS09 Danger for environment

H314 It causes severe skin burns and eye damage - H331 Toxic for inhalation - H412 Harmful for water organisms with long lasting effects

Indication of specific danger for man and environment

The product must be classified according to method of the "General CE Directive about Substances", Dir. 67/548/CE as per latest version, and of the "General CE Directive about components", Dir. 1999/45/CE, as per latest version.

2.2 Labels elements

Labelling as per regulation (CE) n. 1272/2008
The product is classified according to CLP regulation.

Danger pictograms

GHS05 Corrosion

GHS08 Danger for inhalation

GHS09 Environment danger

Warning : Danger

Danger indication : H314 causes severe skin burns and eye damage – H331 Toxic for inhalation - H412 Harmful for water organisms with long lasting effects

Safety advise : P260 DO not breathe dust/s, fume/s, gas/es, vapor/s, aerosol. P280 Wear gloves / protective clothing. Protect the eyes / the face.

P304+P340 INHALATION: remove the injured from polluted area and take him in the fresh air in a position which helps the breathing.
P305+P351+P338 CONTACT WITH EYES: wash abundantly with water for some while. Remove any contact lens if possible. Continuously wash. P405 Keep locked up.
P501 Dispose of the product / container according to local / regional / national / international rules.

2.3 Other danger

Results of the evaluation PBT and vPvB
PBT: Not applicable.
vPvB: Not applicable.

SAFETY DATA SHEET

According to regulation UE n. 453/2010 – regulation 1907/2006/CE Art.31

Section 3: Composition / information about components

Dangeours components

CAS/EINECS	NUMBER	Components	% in weigh	Symbol	Classification CLP	
CAS	7439-92-1	Lead and lead metallic alloys	30-35	T(1)		
EINECS	231-100-4					
CAS	7439-92-1	Lead Compound	30-35	T(2)	H412 (R52/53)	
EINECS	231-100-4				H360D / H360F	
CAS	7664-93-9	Electrolyte (sulphuric acid)	25-35	C	H314	
EINECS	231-639-5					
		Polypropylene (boxes and other	6-10			

(1) See point 12 Ecological Information
(2) Lead compound are classified as Toxic for breeding, Category 1 and then harmful for fetus. Even if this category is not described and included on a specific danger symbol, there is the obligation to label with “T”, even if lead compound are not classified as “toxic”.

Section 4: First aid measures

4.1 Description of the first aid measures General indication

Immediately remove contaminated clothing, promptly and long wash the damaged parts with a lot of water. If necessary, use emergency showers and eyes’ showers. The rescuer should bring personal protective equipment.

Inhalation

Remove injured from the polluted area and bring him to fresh air. Consult a doctor.
If the subject is unconsciousness, during transport to hospital, keep him in a stable position on his side (recovery position).

Contact with skin
Immediately wash with fluent water till complete elimination of any possible trace. Remove contaminated clothing and make sure they are duly drained before wearing them again. Consult a doctor.

Contact with eyes
Wash carefully and fluently with water for a long while keeping eyelids well open, up to the full removal of symptom, and then use a decongestant ophthalmic solution; finally consult a doctor.

Ingestion

Do not induce vomiting, call or go immediately to the doctor.

Drink abundant water and stay in climate area. Consult a doctor.

4.2 Main symptoms and effects, acute and tardive

Note for the doctor : Show this safety data sheet to your

doctor. No more information are available

4.3 Indication about possible necessity of immediate consulting a doctor for special treatments

No more information are available

Section 5: Fire proof measures

General information
As for any wire, wear a self-respirator at pressure-demand, MSHA/NIOSH (or equivalent) approved, and complete protective wearing.

5.1 Extinguishing means Suitable means

CO_2, chemical powders A/B/C.

Un-suitable means for safety reasons

Water, if tension of the battery is more than 12 V

5.2 Specific dangers coming from product or mixture

The product, exposed to heat, releases toxic vapors

5.3 Recommendations for the fire extinguishing people Specific protective means

Wear the quick-mask gas.
Wear full protective suit.
Other indication The plastic box of the lead acid battery can weakly burn.

Section 6: Accidental release's measures

General Information
This information is important only if the battery is broken down and its components are outside released. In case of outgoing, hold the electrolyte with sand or soil, neutralize with lime, soda or sodium carbonate, avoiding flowing of electrolyte or possible dusts into water wastes or surface waters.
Use specific protective equipment as per Section 8.

6.1 Personal precautions, protective devices and emergency procedures

Wear protective clothing (boots, gloves, goggles, visor and apron adequate for corrosive). Keep away people not equipped. In close, limited or badly aerated rooms, wear a quick-mask gas with special filter for solvents and organic vapors (brown color); make sure about its efficiency before use.

6.2 Environmental precautions

In case of accidental outgoing, remove or contain the outgoing and proceed to hold and recover it as below : collect contaminated water or soil in special container to be sent to proper disposal. In case a dangerous quantity of product would have reached a water river, or the sewage or have contaminated the soil or the vegetation, immediately relate the competent authority.

6.3 Method and material to contain and for the drainage

Suck the liquid in a special hermetically closed container and absorb the remaining product with porous material (tri-poles, acid binders, universal binders, etc.).

Use neutralization means.
Disposal of contaminated material according to par. 13.
Ensur adequate ventilation.

6.4 Reference to other sections

For information about safe handling, see Chap. 7.
For information about protective personal equipment, see Chap. 8.
For information about disposal, see Chap. 13.

SAFETY DATA SHEET

According to regulation UE n. 453/2010 – regulation 1907/2006/CE Art.31

Section 7: Handling and storage

7.1 Precautions for safe handling:

Keep the batteries in fresh and aerated rooms, protected from sun and away from heating sources. Proper ventilation / aspiration of the working rooms.

Indication to prevent fires and explosions
Keep away from heating sources, do not smoke. Do not store at - 50 °C
Keep the quick-mask gas ready.

7.2 Conditions for a safe storage, including possible

incompatibility Storage

Requirements of stores and containers
Keep in fresh room, use surfaces without discharge or containment basins
Indication for the mixed storage
Avoid the presence of incompatible materials, see Chap. 10
Further indication for storage
Keep container hermetically closed.
Keep container in aerated room.

7.3 Specific final uses No more information are available

Section 8: Check of the individual exposure / protection

Further indication about technical installation*:* No further data, see Chap. 7.

8.1 Check parameters

Components with limited values to be kept under control on working environments

7439-92-1 - 7664-93-9

Further indications : No further data.

8.2 Exposure checks

Individual protective means
Protective general norms and hygienic
Keep away from hood, beverages and fodder.
Keep away from children.
Immediately remove contaminated wearing.
Wash the hands before break-down or at the end of the working day.
Avoid contact with eyes and skin.
Do not eat or drink during operation of filling and handling.

Protection of respiratory: protective mask, during filling operation.
Protection of hands: protective to chemical agents rubber gloves, during filling.
Protection of eyes: protective goggles, during filling.
Protection of skin: protective suit, acid-proof clothing, during filling.

Section 9: Physical and chemical properties

9.1 Information about main chemical and physical properties

Aspect:	
State:	Solid
Color:	Grey
Smell :	Odorless
Olfactory threshold	Not defined
pH values	Not defined
Electrolyte aspect:	
State:	Liquid
Color:	Colorless
Smell :	Odorless
Olfactory threshold	Not defined
pH values	Not defined

State changing

Melting / freezing point:	Not defined
Solidification point:	327 °C
Initial boiling point and interval:	1740 °C
Flash point :	Not applicable
Flashing:	Not applicable
Explosion limit:	Not exploding
Vapor tension :	Not applicable
Vapor density :	Not applicable
Relative density :	at 20°C 11,35
g/cm3 Solubility/Miscibility with	
water:	very low (0,15 mg/l)
alcohols:	Not defined
viscosity:	Not defined
dynamic	Not defined
cinematic	Not defined

State changing of electrolyte

Melting / freezing point:	Not defined
Solidification point:	-35 ÷ 60 °C
Initial boiling point and interval:	108 ÷ 114 °C
Flash point :	Not applicable
Flashing:	Not applicable
Explosion limit:	Not exploding
Vapor tension :	Not applicable
Vapor density :	Not applicable
Relative density :	at 20°C 1,2÷1,3
g/cm3 Solubility/Miscibility with	
water:	Complete
alcohols:	Not defined
viscosity:	Not defined
dynamic	Not defined
cinematic	Not defined

9.2 Other information

Not available

Section 10: Stability and reactivity

10.1 Reactivity
10.2 Chemical stability
Thermal decomposition and condition to be avoided

The product presents thermal decomposition at 338 ° C; destroy organic materials like carton, wood, textile; reacts with metals, production of hydrogen, strong reaction with sodium hydroxide and alkali.

10.3 Dangerous reaction
Reactions with heavy metals.
Reactions with alkali (alkaline solutions).
Explosive reactions with oxidants like potassium chlorate and peroxides.

10.4 Conditions to be avoided No more information
10.5 Material incompatibles No more information
10.6 Dangerous decomposition products No more information

SAFETY DATA SHEET

According to regulation UE n. 453/2010 – regulation 1907/2006/CE Art.31

Section 11: Information toxicological

11.1 Information about toxicological effects

Acute toxicity
Values LD/LC50 important for the classification
7439-92-1 - 7664-93-9
Oral: LD50 (oral, rat) = 2,140 mg / kg
For inhalation: LC50 (inhalation, rat) = 510 mg / m³ / 2h
Primary irritability
On skin : highly corrosive on skin and mucous.
On eyes: highly corrosive.
Ingestion: harmful if swallowed
Inhalation: highly harmful for mucous laceration and upper respiratory tract
Sensitivity: sensitivity effects are not reported
Further toxicological effects
Electrolyte (sulphuric acid)
If swallowed, it provokes high corrosion of the oral cavity and of the pharynx with perforation danger for esophagus and stomach .
Lead and its components:
Lead and its components, used on the battery, can damage blood, nerves and kidneys when swallowed. The lead contained on the active material is classified as toxic for breeding.

Section 12: Ecological information

12.1 Toxicity

Toxicity in water	Toxicity for fishes : 96 h LC 50> 100 mg / l
Toxicity Invertebrates	Toxicity per algae: 72 h IC 50> 10 mg / l

12.2 Persistence and degradability No more information available
12.3 Potential for bio-cumuls No more information available
12.4 Mobility on soil No more information available

Toxic effects for the environment
Dangerous for water of class 1 (D) (Classif. As per tables): low danger.

Do not put product not diluted or not neutralized on waste waters or collection channels.

12.5 Results of evaluation PBT and vPvB

PBT: Not applicable.
vPvB: Not applicable.

12.6 Other effects No more information are available

The results show that these compounds of lead oxide for batteries in a concentration of 100 mg / l have no negative effect on fishes and algae. A concentration of lead oxide for batteries of 10 mg / l have no negative effect on growth and bio-mass. For the classification, according to Directive 67/548/CEE, must be considered the most sensitive and negative effect and being or seaweeds the toxicity > 10 mg / l, the lead oxide for batteries must be classified according to the sentence R52/53 (harmful for aquatic organisms, it can provoke a negative long term effects for the aquatic atmosphere).

Section 13: Consideration on disposal

13.1 Methods for waste disposal

Suggestion
Do not dispose the product together with domestic waste. Do not put on the sewage.
This information is important if the battery is broken and the components are released on the environment.

Electrolyte (diluted sulfuric acid)
In order to avoid damage to the depuration system, the acid must be neutralized with lime or sodium carbonate before disposal. A ecological damage can be done because of the pH variation. The electrolyte solution reacts with water and organic substances and causes damage to flora and fauna. The electrolyte can also contain lead soluble components that can be toxic for aquatic environment

Lead and its components
The chemical-physical treatment is required before eliminate them into water. The waste water containing lead cannot be disposed without treatment.
The classification system of the lead components as toxic for aquatic environment R50/53 was activated since experimental results of the ‘80s about lead soluble components (lead acetate). The lead components present on the battery, rarely soluble as the lead oxide, have been tested only recently, 2001-2005, and they have not been found to be toxic for environment, nor R50 nor R50/53 nor R51/53. Then the general classification for lead components (R50/53) does not apply to the lead oxide for batteries to which is only related the danger sentence R52/53 (harmful for aquatic organisms, it can provoke negative effects to the aquatic environment long lasting) - see Ch. 12 – Ecological Information.

Waste Code

The lead batteries exhausted are classified as “dangerous goods” with the European code CER 16601 and have to be disposed by means of recycling.
The exhausted lead batteries, to simplify collection and recycle, cannot be mixed together with other type of batteries.
The electrolyte (diluted sulfuric acid) in no way can be handled by unskilled personnel ; the proceeding, normally, has to be realized by special company.

For further information and to know the closest collection point, refer to :
COBAT - Consorzio nazionale batterie esauste
via Toscana 1 - 00187 ROMA

Dirty packages
Suggestion
The container and package contaminated have to be disposed by authorized company, according to the actual norms.

Suggested detergent
Water, in case with detergents addition.

Section 14: Information on the transport

14.1 Number ONU: See point 14.3

14.2 Name of shipment for USA: See point 14.3

14.3 Danger class(es) for the transport

Class ADR / RID – GGVS / E: 8 Corrosive substances

Ground / Railway Transport	**ADR / RID (after boards)**
Class ADR :	8
Number ONU :	2794
Figure / Letter:	1b
Number Kemler:	80
Proper shipping name :	BATTERIES with ECLECTROLYTE LIQUID

Vessel Transport	**IMDG**
Class IMDG:	8
Page:	8120
Number ONU:	2794
Packing Group:	III
Number EMS:	F-A ; S-B
MFAG:	800
Proper shipping name :	ELECTRIC ACCUMULATORS WITH LIQUID ELECTROLYTE ACID

SAFETY DATA SHEET

According to regulation UE n. 453/2010 – regulation 1907/2006/CE Art.31

Air Transport	**ICAO – TI and IATA - DGR**
Class ICAO / IATA:	8
Number ONU / ID:	2794
Packing Group:	III
Proper shipping name :	ELECTRIC ACCUMULATORS WITH LIQUID ELECTROLYTE ACID

14.4 Packing Group

ADR/IMDG/IATA	III

14.5 Dangers for the environment Yes

14.6 Special precautions for the user Attention: corrosive material

Figure / Letter:	1b
Number Kemler:	80
Proper shipping name :	UN2794

14.7 Transport in bulk according to annex II of the Marpol Convention and to IBC receipt
Not applicable

Section 15: Information on regulation

15.1 Norms and regulations about health, safety and environment specific for this product or mixture

National regulations:

When applicable, please refer to following norms and relevant releases :

- D.P.R. 303/56 (art. 64: healthy checks, prevention to professional diseases);
- D.Lgs. 475/82 (personal protective wear);
- D.Lgs. 81/2008 and updated (safety and health of the personnel on working places);
- D.Lgs. 52/97 (classification, packing and labeling of dangerous goods)
- D.Lgs. 25/02 (chemical agents);
- D.Lgs. 65/03 (classification, packing and labeling of dangerous goods);
- D.Lgs. 152/06 (emissions in atmosphere, liquid wastewater, scraps).

· Indications for limitation of the working acitivity

· Danger class for water :
Danger for water class 1 (WGK1) (Class according to tables): low danger.

SAFETY DATA SHEET

According to regulation UE n. 453/2010 – regulation 1907/2006/CE Art.31

Classification according to Directives CEE

The product is classified and identified according to CE norms on dangerous products / dir. 67/548 25° release / dir 88/379 4° release. In conformity with the UE directive about battery and with D.Lgs. 188/2008 the lead acid batteries have to be labeled with a crossed-out bin with the chemical symbol of the lead as below :.

Furthermore, the lead acid battery has to present following danger symbols :

	No smoking, No free flames, No sparks		Corrosive
	Wear protective googles		Mixture of explosive gases
	Keep away from children		Follow instructions

National regulations
Classification according to VbF: Not applicable

Dangerous Class for water

Danger for water class 1 (WGK1). (Class according to tables): low danger

15.2 Chemical safety evaluation Carried out.

SAFETY DATA SHEET

According to regulation UE n. 453/2010 – regulation 1907/2006/CE Art.31

Section 16: Other information

Batteries do not require a Safety Data Sheet as stated on art. 31 of the Reach (Regulation CE 1907/2006).

The above information are given in good faith according to actual knowledge and do not represent a safety guarantee on all conditions. It is under user's responsibility to follow all law advises as far as storage, use, maintenance and disposal of the product.

Read the manual of use on the guarantee certificate.