Material Safety Data Sheet

1. Product and Company Identification

Brand: CRANQ

Series name: CRANQ Premium, Premium Asia

Manufacturer: batterium GmbH
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Models:

Premium P44	Premium P65	Premum P85
Premium P50	Premium P70	Premium P90
Premium P55	Premium P75	Premium P100
Premium P60	Premium P80	Premium P110

Premium Asia PA45 J1	Premium Asia PA65 J1	Premium Asia PA100 J1
Premium Asia PA45 J2	Premium Asia PA65 J2	Premium Asia PA 100 J2
Premium Asia PA47 J1	Premium Asia PA80 J1	
Premium Asia PA47 J2	Premium Asia PA80 J2	

2. Composition / Information on Ingredients

Component	Approx. percentage (weight)	CAS No.	EC no.	Classification in accordance with Regulation (EC) no. 1272/200
Lead metal and compounds	60 to 70%	7439-92-1, 1309-60-0	231-100-4, 215-174-5	H362 - may cause harm to breast-fed children Acute Tox. 4 H302 - harmful if swallowed H332 - harmful if inhaled Repr. 1A H360Df - may damage fertility. May damage the unborn child. STOT Rep. Exp. 2 H373 - may cause damage to organs through prologed or repeated exposure Aquatic acute 1 H400 - very toxic to aquatic life H410 - very toxic to aquatic life with long lasting effects
Sulfuric acid (H2SO4)	20 to 30%	7664-93-9	231-639-5	Skin Corr 1A H314 - causes severe skin burns
Thermoplastic polymers	6 to 9%	-	-	-

3. Hazards Summary

Sulfuric Acid: Under normal conditions of use, Sulfuric Acid vapors and mist are not generated. Sulfuric Acid vapors may be generated when the product is overheated, oxidized or otherwise processed or damaged.

Lead Compounds: Under normal conditions of use, lead dust, vapors and fumes are not generated. Hazardous exposure may occur when the product is overheated, oxidized or otherwise processed or damaged to create dust, vapor or fumes.

Other: May form explosive air/gas mixture during charging.

Electrical hazard: Batteries can contain a considerable amount of energy, which may be a source of high electrical current and a severe electrical shock in the event of a short circuit.

Routes of entry and potential health effects:

Inhalation: Sulfuric acid vapors or mist may cause severe respiratory irritation. Lead dust or fumes may cause irritation of upper respiratory tract or lungs.

Skin contact: Sulfuric acid may cause severe irritation, burns and ulceration. Lead Compounds are not readily absorbed through the skin.

Eye contact: Sulfuric acid may cause severe irritation, burns and cornea damage and possible blindness. Lead Compounds may cause eye irritation.

Ingestion: Sulfuric acid may cause severe irritation of mouth, throat, esophagus and stomach. Lead ingestion may cause nausea, vomiting, weight loss, abdominal spasms, fatigue and pain in the arms, legs and joints.

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4. First Aid Measures

Inhalation:	Move the affected person to fresh air. If they are not breathing, administer articifial respiration. Seek medical attention.
Skin contact:	Immediately remove contaminated clothing and shoes. Wash off affected area with plenty of water. Consult a physician.
Eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.
Ingestion:	Do not induce vomiting. Rinse mouth and drink plenty of water. Do not administer anything by mouth to an unconcious person. Consult a physician.

5. Fire Fighting 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.

Extinguishing media:	Dry chemical powder, foam, CO2
Unsuitable extinguishing media:	Water.

To avoid risk of fire or explosion, keep the battery away from sparks and other sources of ignition. Do not allow metal objects to simultaneously contact both positive and negative terminal of a battery.

Venlilate the area well.

6. Accidental Release Measures

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.

Environmental protective measures
Always keep electrolyte or lead dust away from sewers, water drains and water sources.

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 in comes into contact with water it may have an exothermic (heat release) reaction.

7. Handling and Storage

Handling:	Handle with care. Never lift a battery by its terminals.
Storage:	Store in cool, dry area away from combustible materials, direct sunlight and heat sources. Do not store in sealed, unventilated areas. Avoid overcharging.
Precautions:	The batteries contain diluted suphuric acid. Prevent any risk of short circuits. Do not charge in unventilated areas. Do not use organic solvents or other than recommended chemical cleaners on battery.

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8. Exposure Controls/Personal Protection

PPE is for protection against exposure to the contained electrolyte. Other battery components are solid and not considered hazardous (except lead compounds: risk of ingestion).

Eye protection: Safety glasses (EN 166 standard).

Hand protection: Acid-resistant rubber glove (EN374 standard).

Body protection: Acid-resistant work clothing and boots.

Remove jewelry, rings, watches and any other metallic objects while working on batteries. All tools should be adequately insulated to avoid any possibility of short circuits. Do not lay tools on top of the battery. Be sure of discharge static electricity from tools and individual persons by touching a grounded surface in the vicinity of the batteries.

Batteries are heavy. Serious injury can result from improper lifting or installation. Do not lift, carry, install or remove cells by lifting or pulling the terminal posts. Do not wear nylon clothes or overalls as they can create static electricity. Always keep a class C fire extinguisher and emergency communications device in the work area.

Wash hands thoroughly after working with batteries and before eating, drinking or smoking.

9. Physical and Chemical Properties

Physical state: Solid

Electrolyte: Sulfuric acid in a water solution.
Specific gravity: 1.22 to 1.30 kg/l
Corrosive, odourless, non-flammable.

10. Stability and Reactivity

Chemical stability: Stable and non-reactive under recommended conditions.

Conditions to avoid: Sparks and other sources of ignition. Prolonged overcharge. Fire and explosion hazards due to possible hydrogen gas generation. Short circuits. Water.

Incompatibilities: Combination of sulfuric acid with combustibles and organic materials may cause fire and explosions. Avoid strong reducing agents, most metals, carbides, chlorates, nitrates,picrate.

11. Toxicological Information

This product does not elicit toxicological properties during routine handling and use.

12. Ecological 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.

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13. Disposal Considerations

Used lead-acid batteries are classified as “hazardous waste products”. Dispose of them through authorised waste management centres for recycling in accordance with national, state and local regulations. Do not dispose of used batteries in the environment. The EWC (European Wastes Catalogue) code for spent lead-acid batteries is 16 06 01.

14. Transport Information

Batteries are considered “NON-HAZARDOUS GOODS” if shipped dry charged (i.e. not filled with acid).

a) Flooded Lead-Acid Batteries

By land (ADR/RID - road/railway)

Proper shipping name:	BATTERIES, WET, FILLED WITH ACID electric storage
UN No.:	UN2794
Hazard class:	8
Packing group ADR:	Not assigned
Label required:	No. 8

If new and spent batteries meet the Special Provision 598, they are exempted from all ADR codes.

By sea (IMDG Code)

Proper shipping name:	BATTERIES, WET, FILLED WITH ACID electric storage
IMDG UN No.:	UN2794
IMDG hazard class:	8
Packing group:	Not assigned
Packing instructions:	P801
IMDG EmS:	F-A, S-B
Label required:	No. 8

By air (ICAO/IATA-DRG)

Proper shipping name:	BATTERIES, WET, FILLED WITH ACID electric storage
ICAO/IATA UN No.:	UN2794
ICAO/IATA hazard class:	8
ICAO/IATA packing group:	III
Label required:	No. 8

b) VRLA Batteries, complying with Special Provision 238 of ADR and IMDG Codes

By land (ADR/RID, US DOT - road/railway)

Proper shipping name:	BATTERIES, WET, NON SPILLABLE electric storage
UN No.:	UN2800
Hazard class:	8

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Packing group ADR:	Not assigned
Packing instructions:	P003 - P801a
Label required:	No. 8

If new and spent batteries meet the Special Provision 598, they are exempted from all ADR codes.

If non spillable batteries meet the Special Provision 238, they are exempted from all ADR codes.

By sea (IMDG Code)

Proper shipping name:	BATTERIES, WET, NON SPILLABLE electric storage
IMDG UN No.:	UN2800
IMDG hazard class:	8
Packing group:	Not assigned
Packing instructions:	P003
IMDG EmS:	F-A, S-B
Label required:	No. 8

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:	No. 8

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 labelling

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

H314 – Causes severe skin burns and eye damage

H302 – Harmful if swallowed

H332 – Harmful if inhaled

H360Df – May damage fertility. May damage the unborn child

H362 - May cause harm to breast-fed children

H373 – May cause damage to organs through prolonged or repeated exposure

H400 – Very toxic to aquatic life

H410 – Very toxic to aquatic life with long lasting effects.

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Safety advice – General

P102 – Keep out of reach of children

Safety advice – Prevention

P210 – Keep away from heat, sparks, open flames, hot surfaces. No smoking.

Safety advice – Reaction

P305 + P351 + P338 – IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P303 + P361 + P353 – IF ON SKIN (or hair): remove/take off immediately all contaminated clothing. Rinse skin with water/ shower.

Where applicable, to make reference to normative following:

- D. Lgs. 152/2006 and following modifications;

- D. Lgs. 81/2008 and following modifications;

- Regulation (EC) no. 1907/2006 of European Parliament and Council of December 18, 2006;

- Regulation (EC) no. 1272/2008 of European Parliament and Council of December 16, 2008.

16. Other Information

Substances of Very High Concern (SVHC)

As of June 27, 2018, lead metal (CAS No. 7439-92-1) was added to the four Lead compounds already included in the list of Substances of Very High Concern (SVHC) according to REACH Regulation: lead monoxide, lead tetroxide, tetralead trioxide sulphate and pentalead tetraoxide sulphate.

The batteries/cells ready for use (wet charged) do not contain oxides or sulphates that are classified SVHC; the content of lead metal, yet, varies but always exceeds the notification threshold of 0.1% in weight/weight.

The dry-charged batteries/cells (with dry charged plates, delivered without electrolyte) contain also lead monoxide (PbO – CAS 1317-36-8) in a quantity exceeding 0.1% in weight/weight. Once they are filled with electrolyte, all the Lead Monoxide is immediately transformed into Lead Sulphate (PbSO4) that is not classified as a SVHC.

The unformed batteries/cells ("green") contain the SVHC substances previously mentioned in a quantity exceeding 0.1% in weight/weight.

General

The information given above is provided in good faith based on present knowledge and does not constitute an assurance of safety under all conditions. It's the users responsibility to observe all laws and regulations applicable. We make no warranty of merchantibility or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or expemplary damages, howsoever arising, even if we have been advised of the possibilty of such damages. If there are any queries, the supplier should be consulted. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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