Material Safety Data Sheet

1. Product and Company Identification

Brand:	ACCURAT
Series name:	ACCURAT Traction (Gel batteries)
Manufacturer:	batterium GmbH Robert-Bosch-Straße 1, 71691 Freiberg am Neckar, Germany T: +49 7141 - 1410870 | F: +49 7141 / 560 90 49 | info@batterium.de batterium.de

Models:

- Traction T85 GEL
- Traction T115 GEL
- Traction T230 GEL
- Traction T260 GEL
- Traction T300 GEL

2. Composition / Information on Ingredients

Component	Approx. percentage	CAS No.
Lead (Pb), Lead oxide (PbO)	60 to 70%	7439-92-1, 1309-60-0
Calcium (Ca)	<0.15%	7440-70-2
Tin (Sn)	<1.0%	7440-31-5
Sulfuric acid (H_2SO_4)	10 to 15%	7664-93-9
ABS	5 to 10%	9003-56-9
AGM separator	3 to 4%	

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

Environmental hazards: The contained electrolyte may cause adverse environmental impacts.

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.

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.

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5. Fire Fighting Measures

Characteristics of hazards:	Toxic fumes, gases or vapors may develop during burning.
Hazardous combustion products:	CO, CO_2, acid, hydrogen and oxygen gas.
Extinguishing media:	Dry chemical powder, appropriate foam, CO_2

Special Fire Fighting Procedures:

If batteries are charging, turn off power. Use positive pressure, self-contained breathing apparratus in fighting fire. Water applied to electrolyte generates heat and causes it to splatter. Wear full fire-fighting suits. Venlilate area well.

Unusual Fire and Explosion Hazards:

Hydrogen and oxygen gases are generated in cells during normal battery operation or when charging. (Hydrogen is flammable and oxygen supports combustion). These gases enter the air throught the vent caps during battery overcharging.

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

Absorb any spilled or leaked contents with appropriate materials such as sand, earth or other inert substances. Ventilate the contaminated area well. Place the broken battery and collected materials in a plastic bag or other non-metallic container, provided it is no longer hot or buring. Always dispose of any materials in accordance with national, state and local regulations. In case any packaging materials are soiled with acid, neutralise the acid and rise the materials before disposal.

7. Handling and Storage

Handling:	Never lift a battery by its terminals. Prevent any risk of short cicuited terminals.
Storage:	Store in a dry area at room temperature (<30°C), away from combustible materials, open flames and sources of heat. Make sure the area is well ventilated.
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.

8. Exposure Controls/Personal Protection

Maximum allowable concentration:	N/A
Engineering controls:	No engineering controls are required for handling undamaged batteries.

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.

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9. Physical and Chemical Properties

N/A

10. Stability and Reactivity

Chemical stability:	Stable under normal temperatures and pressures.
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:	Oxidizing agents
Decomposition products:	CO, CO_2, acid, hydrogen and oxygen gas.
Hazardous polymerization:	Will not occur.

11. Toxicological Information

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

12. Ecological Information

Ecological toxicity:	N/A
Biodegradability:	N/A
Abiotic degradation:	N/A
Other hazards:	The contained electrolyte may cause adverse environmental impacts.

13. Disposal Considerations

Always recycle or dispose of batteries in accordance with national, state and local regulations.

Batteries must not be disposed of as ordinary trash. Do not incinerate or expose to high temperatures. Do not open, pierce, crush or otherwise damage the battery.

14. Transport Information

UN No.:	2800
Proper shipping name:	N/A
Packing group:	N/A
DOT:	Unregulated. Meets the requirements of 49 CFR 173, 159 (d). Does not require marking with identification number or hazard label. Not subject to hazardous shipping paper requirements.

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IATA/ICAO:	Unregulated. Can be shipped by air in accordance with international IATA, DGR Packing Instructions (PI), PI872. Meets the requirements of Special Provision A67.
IMDG:	Unregulated, meets the requirements of IMO Special Provision 238.

Batteries must be securly packed. Prevent any possibility of short circuits.

15. Regulatory Information

Recommendations on the transport of dangerous goods-model regulations(15th revised), IATA dangerous goods regulations, International Maritime Dangerous Goods Code, U.S. Hazardous Material Regulations

16. Other Information

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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