

# **JUMP STARTER**

## **CONTAINING Li-Ion BATTTERY**

Document	SDS-1603
Rev	2 NZ
Date	24/7/2019

# 1. PRODUCT IDENTIFICATION

Product Name Jump Starter

Other Names Jump pack, Booster Pack, Portable Lithium Jump Starter, Multi Function

Jump Starter

**Use** Automotive, Industrial Standby Power and Motive Power

Model Number/s Matson MA35000

Rating Capacity 35000mAh 86.58Wh

Input: DC15V, 1.0A Output: DC12V 10A, DC5V 2A

Start Current 600A, Peak Current 1200A

Operating Temp: -20 to 60°C

Weight: 2.7kg Size: 292x233x79mm

Supplier Name Tridon New Zealand Pty Ltd

3 Tiri Place, Mt Wellington, Auckland, NZ

**Telephone** +64 9 259 4327 **Emergency** +64 275 078 997

**Relevant Identified Uses** Starting, ignition for automotive, DC storage.

# 2. HAZARD IDENTIFICATION

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the Model WHS Regulations and the ADG Code.

Poisons Schedule S6 Classified as S6:- Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Acute toxicity

Signal Word DANGER

GHS Classification Metal Corrosion Category 1, Acute Toxicity (Oral) Category 4, Acute Toxicity (Inhalation) Category 3, Skin Corrosion/Irritation Category 1A, Serious Eye Damage Category 1, Carcinogen Category 1A, Reproductive Toxicity Category 1A, STOT - SE

(Resp. Irr.) Category 3\*, STOT - RE Category 2, Acute Aquatic Hazard Category 1, Chronic Aquatic Hazard Category 1

\*LIMITED EVIDENCE

H335

GHS Label Elements



Corrosive



May cause respiratory irritation





Health Hazard

IN THE EVENT OF THE INTERNAL BATTERY COMPONENTS BEING EXPOSED

Hazard Statements H290	May be corrosive to metals	H350	May cause cancer
H302	Harmful if swallowed	H360	May damage fertility or the unborn child
H314	Causes severe skin burns and eye damage	H373	May cause damage to organs through prolonged or repeated exposure
H318	Causes serious eye damage	H400	Very toxic to aquatic life
H331	Toxic if inhaled	H410	Very toxic to aquatic life with long lasting effects



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## IN THE EVENT OF EXPOSURE TO INTERNAL COMPONENTS

Precautionary	Prevention		Response	
Statements	P101	If medical advice is needed, have product container or label at hand.	P301+P312	IF SWALLOWED: Call a POISON CENTER/ doctor/ physician/ first aider/if you feel unwell.
	P102	Keep out of reach of children	P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce
	P273	Avoid release to the environment		vomiting.
	P103	Read label before use.	P302+P352	IF ON SKIN: Wash with plenty of water and soap
	P280	Wear protective gloves /protective clothing/ eye protection/ face protection	P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
	P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.	P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P271	Use only outdoors or in a well-ventilated area.	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	<u>Storage</u>		P308+P313	IF exposed or concerned: Get medical advice/attention
	P403+P233	Store in a well-ventilated place. Keep container tightly closed.	P310	Immediately call a POISON CENTER/ doctor/ physician/ first aider
	P405	Store locked up	P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
	<u>Recycle</u>	Refer to section 13	P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/ doctor/ physician/ first aider
	<b>Disposal</b>		P363	Wash contaminated clothing before reuse.
	P501	Dispose of contents, container to	P390	Absorb spillage to prevent material damage.
		authorised chemical landfill or if organic, to high temperature incineration	P391	Collect spillage.

# 3. COMPOSITION

Chemical Name	Percent Content	CAS No.	OSHA (PEL)	ACGIH
Lithium Cobalt Dioxide (LiCoO2)	25 – 35%	12190-79-3	N/A	0.02mg/m3 as Co
Graphite (C)	15 – 20%	7782-42-5	7.5mg/m3 (as dust)	2mg/m3
Poly Vinylidene Flouride (PVDF)	1 – 5%	24937-79-9	N/A	N/A
Acetylene Black	0.5 – 3%	1333-86-4	N/A	N/A
Aluminium (Al)	21 – 23%	7429-90-5	N/A	N/A
Copper (Cu)	10 – 11%	7440-50-8	N/A	N/A
Electrolyte	10 – 15%	623-53-0 / 21321- 40-3	N/A	N/A

ACGIH: American Council of Government Industrial Hygienists

TLV: Threshold Limit Value are personal exposure limits determined by the ACGIH



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# 4. FIRST AID MEASURES

### Eve contact

It this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by
  occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- · Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

### Skin contact

#### If skin contact occurs:

- Immediately flush body and clothes with large amounts of water, using safety shower if available.
- · Quickly remove all contaminated clothing, including footwear.
- Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre

## Inhalation

If fumes of combustion products are inhaled:

- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor, without delay.

## Indestion

For advice, contact a Poisons Information Centre or a doctor at once.

- Urgent hospital treatment is likely to be needed.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway
  and prevent aspiration.
- Observe the patient carefully.
- · Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Transport to hospital or doctor without delay.

# MEDICAL ATTENTION AND SPECIAL TREATMENT Indication of any immediate medical attention and special treatment needed

Treat symptomatically. For acute or short term repeated exposures to strong acids:

- Airway problems may arise from laryngeal edema and inhalation exposure. Treat with 100% oxygen initially.
- Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling
- Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise
- Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the
  desiccating action of the acid on proteins in specific tissues.

## Ingestion:

- Immediate dilution (milk or water) within 30 minutes post ingestion is recommended.
- DO NOT attempt to neutralise the acid since exothermic reaction may extend the corrosive injury.
- Be careful to avoid further vomit since re-exposure of the mucosa to the acid is harmful.
- Limit fluids to one or two glasses in an adult.
- Charcoal has no place in acid management.
- Some authors suggest the use of lavage within 1 hour of ingestion.

## Skin:

- Skin lesions require copious saline irrigation.
- Treat chemical burns as thermal burns with non-adherent gauze and wrapping.
- Deep second-degree burns may benefit from topical silver sulphadiazine.

# Eve:

- Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjuctival cul-de-sacs. Irrigation should last at least 20-30 minutes. DO NOT use neutralising agents or any other additives. Several litres of saline are required.
- Cyclopaedic drops, (1% cyclopentolate for short-term use or 5% homatropine for longer term use) antibiotic drops, vasoconstrictive agents or artificial tears may be indicated dependent on the severity of the injury.
- Steroid eye drops should only be administered with the approval of a consulting ophthalmologist).



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# 5. FIRE FIGHTING MEASURES

## Recommended Extinguishing Media









x



BCF\ Vaporising Liquid (Where regulations permit).

## Extinguishing Media Incompatibilities

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Specific Hazards Hazardous Decomposition

- Non-combustible
- Not considered to be a significant fire risk.
- Acids may react with metals to produce hydrogen, a highly flammable and explosive gas.
- Heating may cause expansion or decomposition leading to violent rupture of containers.

Fire Incompatibility

- Avoid strong bases.
- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Fire Fighting, Special • Protective Equipment • Precautions

- Use water delivered as a fine spray to control fire and cool adjacent area.
- **Do not** approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

# 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions •

- Avoid breathing vapours and contact with skin and eyes.
- Environmental Precautions
- Prevent, by any means available, spillage from entering drains or water course.

Methods and materials • for containment and •

- With a clean shovel, transfer spilled material into clean-labelled containers for disposal.
- for containment and Wash area
- cleaning up
- Wash area down with excess water.

  Do not allow water to enter containers of acid as a violent reaction may occur.
- Prevent from entering drains, sewers, streams or other bodies of water. If contamination of sewers or waterways has
  occurred, advise the local emergency services
- Protective Equipment Personal Protective Equipment advice is contained in Section 8 of the SDS.

## **Emergency Procedures**

## Minor Spills

- Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.
- Check regularly for spills and leaks.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.

## Major Spills

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.



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## 7. HANDLING AND STORAGE

## Safe Handling

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Handle gently. Use good occupational work practice.
- Observe manufacturer's storage and handling recommendations contained within this SDS.
- Avoid smoking, naked lights, heat or ignition sources.
- Avoid mechanical and thermal shock and friction.
- Use in a well ventilated area.
- Avoid contact with incompatible materials.
- When handling DO NOT eat, drink or smoke.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.

## **Conditions for Safe**

Avoid contact with moisture.

## Storage Includes Incompatible

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- · No smoking, naked lights, heat or ignition sources.

# Suitable container for • Battery contents •

Battery is self-contained but it should be kept in a vertical position to prevent leakage of battery fluid

DO NOT use aluminium or galvanised containers

- All packaging for Class 1 Goods shall be in accordance with the requirements of the relevant Code for the transport of Dangerous
- Class 1 is unique in that the type of packaging used frequently has a very decisive effect on the hazard and therefore on the assignment to a particular division

# Storage incompatibility contents of battery

- Avoid reaction with oxidising agents
- Avoid strong bases.
- Avoid storage with reducing agents.
- Avoid reaction with metals and or water
- Contact with combustible organic matter may cause a fire.
- Avoid contact with finely divided metals.
- Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air.
- Inorganic acids are generally soluble in water with the release of hydrogen ions. The resulting solutions have a pH of less than 7.0.
- Inorganic acids neutralise chemical bases (for example: amines and inorganic hydroxides) to form salts neutralisation can generate dangerously large amounts of heat in small spaces.



(i) = May be stored together with specific preventions

X = Must not be stored together



×













FLAMMABLES

**EXPLOSIVES** 

ACUTE TOXIC

OXIDISERS

HARMFUL

IRRITANT

CORROSIVE

- Batteries should be separated from other materials and stored in a non-combustible, well ventilated, sprinkler protected structure with sufficient clearance between walls and battery stacks. Do not place batteries near heating equipment, nor expose to direct sunlight for long periods.
- Do not store batteries above 35 degrees Celsius or below -20 degrees Celsius.



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# 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

## APPROPRIATE ENGINEERING CONTROLS

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:

- Process controls which involve changing the way a job activity or process is done to reduce the risk.
- Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

## PERSONAL PROTECTION



Respirator Type
Not normally required; however if in contact with internal components:-

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	E-AUS P2	-	E-PAPR-AUS / Class 1 P2
up to 50 x ES	-	E-AUS / Class 1 P2	-
up to 100 x ES	-	E-2 P2	E-PAPR-2 P2 ^

^ - Full-face

E = Sulfur dioxide(SO2),



## Eye Protection

- Safety glasses with side shields.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.



## Clothing

Overalls.



## Footwear

Wear safety footwear or safety gumboots



## Glove Type

Wear Elbow length chemical protective gloves, e.g. PVC.



# Other Protection

- PVC protective suit may be required if exposure severe.
- Eyewash unit

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Odour	Not Available	Lower explosive limits	Not Available
Odour threshold	Not Available	Vapour pressure (kPa)	Not Available
pH	Not Available	Vapour density (Air = 1)	>1
Melting point/ freezing point (°C)	Not Applicable	Relative density (Water = 1)	Not Available
Initial boiling point and boiling range (°C)	95-95.55 °C	Solubility in water (g,L)	Insoluble
Flash point	Not Applicable	Partition coefficient: n-octanol/water	Not Available
Evaporation rate	Not Available	Auto-ignition temperature	Not Available
Flammability	Not Applicable	Decomposition temperature (°C)	Not Available
		Viscosity	Not Available



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# 10. STABILITY AND REACTIVITY

Product is considered stable under normal Reactivity See section 7 Chemical stability

handling conditions.

Stable under normal storage conditions.

Hazardous polymerization will not occur.

Possibility of hazardous See section 7 Conditions to avoid

Incompatible materials See section 7 Hazardous decomposition See section 5

products

# 11. TOXICOLOGICAL INFORMATION

Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, Inhaled may produce toxic effects.

Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane

damage. There may be dizziness, headache, nausea and weakness.

Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 Ingestion gram may be fatal or may produce serious damage to the health of the individual.

Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident.

Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may Skin contact heal slowly with the formation of scar tissue.

> Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably

If applied to the eyes, this material causes severe eye damage. Eye

Direct eye contact with acid corrosives may produce pain, tears, sensitivity to light and burns. Mild burns of the

epithelia generally recover rapidly and completely

As above Immediate effects

Other Adverse Effects

# 12. ECOLOGICAL INFORMATION

Prevent, by any means available, spillage from entering drains or water courses. **Ecotoxicity** 

DO NOT discharge into sewer or waterways.

No Data available for all ingredients

No Data available for all ingredients Degradability

No Data available for all ingredients **Bio-accumulative Potential** 

No Data available for all ingredients Mobility in Soil

The battery DOES NOT contain Cadmium, Lead or Mercury

When properly used and disposed of, battery does not present environmental hazard.

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# 13. DISPOSAL CONSIDERATIONS

Safe Handling & Disposal •

Dispose in accordance with federal, state or local regulations.

Disposal of Contaminated • Packaging •

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Treat and neutralise at an approved treatment plant. Treatment should involve: Mixing or slurrying in water;
  Neutralisation followed by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material)
- Decontaminate empty containers

Environmental Regulations

Refer to section 15

# 14 TRANSPORT INNFORMATION

Shipping Name: Jump Starter

The jump starter MA35000 tested according to the requirements of the UN manual of tests and criteria part III, sub section 38.3 and result was PASSED

# CORROSIVE 8

# **Packing Group**

The Watt-hour rating is no more than 20Wh/cell and 100Wh/battery pack and can be treated as "Non-Dangerous Goods" by the United Nations Recommendations on the Transport of Dangerous Goods / Special Provision 188, products are prevented from being short circuited to each other and are packaged in an appropriate condition which satisfies packing Group II performance level.

The jump starter according to Section II/Section IB of PACKING INSTRUCTION 965, or Section II of PACKING INSTRUCTION 966-967 of the 2016 IATA Dangerous Goods regulations 57<sup>th</sup> Edition may be transported and applicable U.S. DOT regulations for the safe transport of Jump Starter.

With regard to transport the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) Technical Instructions
- The International Air Transport Association (IATA) Dangerous Goods Regulations
- The International Maritime Dangerous Goods (IMDG Code Inc. Am. 37-14)
- UN Number of the lithium battery UN3480 or UN3481

NOTE - THIS TRANSPORT INFORMATION IS PERTINENT TO ALL CURRENT MATSON JUMP PACK BATTERIES

# 15. REGULATORY INFORMATION

The transport of rechargeable lithium-ion batteries regulated by the United Nations as detailed in the 'Model Regulations on the transport of Dangerous Goods Ref. ST/SG/AC.10/1 Rev 18, 2013"

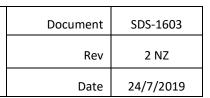
Defined by the UN in the "Recommendations on the transport of Dangerous Goods Chapter 38.3 Manual of Tests and Criteria Ref. ST/SG/AC/10/11 Fifth revised Edition 2011". The lithium Ion cells and the battery packs may or may not be assigned to the UN No. 3480 Class-9 that is restricted for transport.

# 16. OTHER RELEVANT INFORMATION



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Revision	Date	Description
1	13 July 2016	Initial SDS
2	24 July 2019	Update

	1	13 July 2016	Initial SDS	
	2	24 July 2019	Update	
Abbraviations AICS Australia Inventory of Chemical Substances				

**Abbreviations** APVMA Australian Pesticides and Veterinary Medicines Authority AQIS Australian Quarantine and Inspection Service CAS# Chemical Abstract Service Number – used to uniquely identify chemical compounds IARC International Agency for Research on Cancer Lethal Concentration- toxicity of the surrounding medium that will kill half of the sample population of a specific test-animal in a specified period through exposure via inhalation (respiration) LC50 Safety Data Sheet- (SDS), previously called a Material Safety Data Sheet (SDS), SDS