Safety Data Sheet

This product is defined as an article under REACH and does not require a Safety Data Sheet under Article 31 of Regulation (EC) No. 1907/2006. Since an SDS is not required, this document does not contain all of the information that is required for substance and mixture SDSs under REACH.

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
TR-332 High Capacity Battery

Product Identification Numbers
XA-0077-0656-8

7100005643

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Battery

1.3. Details of the supplier of the safety data sheet

Address:	3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone:	+44 (0)1344 858 000
E Mail:	tox.uk@mmm.com
Website:	www.3M.com/uk

1.4. Emergency telephone number
+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:
This material is exempt from hazard classification according to Regulation (EC) No. 1272/2008, as amended, on classification, labelling, and packaging of substances and mixtures.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008
Not applicable

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
Acrylonitrile-Butadiene -Styrene Copolymers	None			45 - 65	Substance not classified as hazardous
cobalt lithium oxide	12190-79-3	235-362-0		30 - 40	Substance not classified as hazardous
Ethylene Carbonate	96-49-1	202-510-0		1 - 5	Eye Irrit. 2, H319
lithium hexafluorophosphate(1-)	21324-40-3	244-334-7		1 - 5	Substance not classified as hazardous
Diethyl carbonate	105-58-8	203-311-1		1 - 5	Substance not classified as hazardous
dimethyl carbonate	616-38-6	210-478-4		1 - 5	Flam. Liq. 2, H225
propylene carbonate	108-32-7	203-572-1		0.1 - 1	Eye Irrit. 2, H319

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
No need for first aid is anticipated.

Skin contact
No need for first aid is anticipated.

Eye contact
No need for first aid is anticipated.

If swallowed
No need for first aid is anticipated.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1 Information on toxicological effects

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media
In case of fire: Use a carbon dioxide extinguisher to extinguish. Battery may burn without external flame when damaged.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Toxic vapour, gas, particulate.	During combustion.

5.3. Advice for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Not applicable.

6.2. Environmental precautions
Not applicable.

6.3. Methods and material for containment and cleaning up
Not applicable.

6.4. Reference to other sections
Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling
This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents.

7.3. Specific end use(s)
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

Biological limit values
No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

8.2. Exposure controls

8.2.1. Engineering controls
Not applicable.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Eye protection not required.

Skin/hand protection
No chemical protective gloves are required.

Respiratory protection

Respiratory protection is not required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
Physical state	Solid.
Colour	Black
Specific Physical Form:	Battery
Odor	Odourless
Odour threshold	*Not applicable.*
pH	*Not applicable.*
Boiling point/boiling range	*Not applicable.*
Melting point	*Not applicable.*
Flammability (solid, gas)	Not classified
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	No flash point
Autoignition temperature	*Not applicable.*
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Vapour pressure	*Not applicable.*
Relative density	*No data available.*
Water solubility	*Not applicable.*
Solubility- non-water	*Not applicable.*
Partition coefficient: n-octanol/water	*No data available.*
Evaporation rate	*Not applicable.*
Vapour density	*Not applicable.*
Decomposition temperature	*Not applicable.*
Viscosity	*Not applicable.*
Density	*No data available.*

9.2. Other information

EU Volatile Organic Compounds	*No data available.*
Percent volatile	*Not applicable.*

SECTION 10: Stability and reactivity

10.1 Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability
Stable. Stable to 130 ºC

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Heat.

10.5 Incompatible materials
Strong oxidising agents.
Reducing agents.
Strong acids.
Strong bases.

10.6 Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition products may occur as a result of oxidation, heating, or reaction with another material.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
No health effects are expected.

Skin contact
No health effects are expected.

Eye contact
No health effects are expected.

Ingestion
No health effects are expected.

Additional information:
This product, when used under reasonable conditions and in accordance with the 3M directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
dimethyl carbonate	Dermal		estimated to be > 5,000 mg/kg
dimethyl carbonate	Inhalation-Dust/Mist		estimated to be > 12.5 mg/l
dimethyl carbonate	Inhalation-Vapour		estimated to be > 50 mg/l
dimethyl carbonate	Ingestion		estimated to be > 5,000 mg/kg
propylene carbonate	Dermal	Rabbit	LD50 > 3,000 mg/kg
propylene carbonate	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
propylene carbonate	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
propylene carbonate	Rabbit	Severe irritant

Skin Sensitisation
For the component/components, either no data is currently available or the data is not sufficient for classification.

Respiratory Sensitisation
For the component/components, either no data is currently available or the data is not sufficient for classification.

Germ Cell Mutagenicity
For the component/components, either no data is currently available or the data is not sufficient for classification.

Carcinogenicity
For the component/components, either no data is currently available or the data is not sufficient for classification.

Reproductive Toxicity

Reproductive and/or Developmental Effects
For the component/components, either no data is currently available or the data is not sufficient for classification.

Target Organ(s)

Specific Target Organ Toxicity - single exposure
For the component/components, either no data is currently available or the data is not sufficient for classification.

Specific Target Organ Toxicity - repeated exposure
For the component/components, either no data is currently available or the data is not sufficient for classification.

Aspiration Hazard
For the component/components, either no data is currently available or the data is not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information

on this material and/or its components.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
cobalt lithium oxide	12190-79-3		Data not available or insufficient for classification			
Diethyl carbonate	105-58-8	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Diethyl carbonate	105-58-8	Green algae	Experimental	72 hours	EC50	>100 mg/l
Diethyl carbonate	105-58-8	Water flea	Experimental	48 hours	EC50	>100 mg/l
Diethyl carbonate	105-58-8	Green algae	Experimental	72 hours	NOEC	100 mg/l
dimethyl carbonate	616-38-6	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
dimethyl carbonate	616-38-6	Green algae	Experimental	72 hours	EC50	>100 mg/l
dimethyl carbonate	616-38-6	Water flea	Experimental	48 hours	EC50	>100 mg/l
dimethyl carbonate	616-38-6	Water flea	Experimental	21 days	NOEC	25 mg/l
dimethyl carbonate	616-38-6	Green algae	Experimental	72 hours	NOEC	100 mg/l
Ethylene Carbonate	96-49-1	Rainbow trout	Experimental	96 hours	LC50	>100 mg/l
Ethylene Carbonate	96-49-1	Crustacea other	Experimental	48 hours	LC50	5,900 mg/l
Ethylene Carbonate	96-49-1	Green Algae	Experimental	72 hours	EC50	>100 mg/l
Ethylene Carbonate	96-49-1	Green Algae	Experimental	72 hours	NOEC	100 mg/l
lithium hexafluorophosphate(1-)	21324-40-3	Rainbow trout	Estimated	96 hours	LC50	68 mg/l
lithium hexafluorophosphate(1-)	21324-40-3	Water flea	Experimental	48 hours	EC50	>100 mg/l
lithium hexafluorophosphate(1-)	21324-40-3	Green Algae	Experimental	96 hours	EC50	>100 mg/l
lithium hexafluorophosphate(1-)	21324-40-3	Fathead minnow	Estimated	22 days	NOEC	4.4 mg/l
lithium hexafluorophosphate(1-)	21324-40-3	Green Algae	Experimental	96 hours	NOEC	22 mg/l
lithium hexafluorophosphate(1-)	21324-40-3	Water flea	Estimated	21 days	NOEC	4.9 mg/l
propylene carbonate	108-32-7	Green algae	Experimental	72 hours	EC50	>900 mg/l

propylene carbonate	108-32-7	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
propylene carbonate	108-32-7	Common Carp	Experimental	96 hours	LC50	>1,000 mg/l
propylene carbonate	108-32-7	Green algae	Experimental	72 hours	Effect Concentration 10%	>900 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
cobalt lithium oxide	12190-79-3	Data not availbl-insufficient			N/A	
Diethyl carbonate	105-58-8	Experimental Biodegradation	27 days	BOD	75 % BOD/ThBOD	OECD 301F - Manometric respirometry
dimethyl carbonate	616-38-6	Experimental Biodegradation	28 days	BOD	86 % BOD/ThBOD	OECD 301C - MITI test (I)
Ethylene Carbonate	96-49-1	Experimental Biodegradation	29 days	CO2 evolution	92.7 % weight	OECD 301B - Modified sturm or CO2
lithium hexafluorophosphate(1-)	21324-40-3	Experimental Hydrolysis		Half-life (t 1/2)	<1 minutes (t 1/2)	Other methods
propylene carbonate	108-32-7	Experimental Biodegradation	28 days	BOD	82 % BOD/ThBOD	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
cobalt lithium oxide	12190-79-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Diethyl carbonate	105-58-8	Estimated Bioconcentration		Bioaccumulation factor	9.8	Estimated: Bioconcentration factor
dimethyl carbonate	616-38-6	Experimental Bioconcentration		Log Kow	0.354	Other methods
Ethylene Carbonate	96-49-1	Experimental Bioconcentration		Log Kow	0.11	Other methods
lithium hexafluorophosphate(1-)	21324-40-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
propylene carbonate	108-32-7	Experimental Bioconcentration		Log Kow	-0.41	Other methods

12.4. Mobility in soil
Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

Not applicable

12.6. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

This product has been classified as a non-hazardous waste. Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)
160604 Alkaline batteries (except 16 06 03)

SECTION 14: Transportation information

XA-0077-0656-8

ADR/RID: UN3480, NOT RESTRICTED, LITHIUM ION BATTERY FULFILLING SP188, HANDLE WITH CARE, FLAMMABLE IF PACKAGE IS DAMAGED, REPACK IF DAMAGED, (--), ADR Classification Code: M4, ADDITIONAL INFORMATION: 0049(0)2131-140.
IMDG-CODE: UN3480, NOT RESTRICTED,AS PER SPECIAL PROVISION 188,LITHIUM ION BATTERY, HANDLE WITH CARE, FLAMMABLE IF PACKAGE IS DAMAGED, REPACK IF DAMAGED, IMDG-Code segregation code: NONE, ADDITIONAL INFO: 0049-(0)2131-140, EMS: --.
ICAO/IATA: FORBIDDEN: NOT ALLOWED FOR AIR FREIGHT

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2. Chemical Safety Assessment
Not applicable.

SECTION 16: Other information

List of relevant H statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.

Revision information:
Section 1: Product identification numbers information was added.
Section 01: SAP Material Numbers information was added.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

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