

SONY

Sony Energy Devices Corporation

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PRODUCT SAFETY DATA SHEET

IDENTITY Product Category : Manganese Dioxide Lithium Battery
 Model Name : CR2032 SONY
 Nominal Voltage : 3 V
 Nominal Capacity : 220 mAh
 Chemical System : Manganese Dioxide / Lithium
 Design for Recharge : Yes. No.

SECTION MANUFACTURER'S INFORMATION

Manufacturer's Name : Sony Energy Devices Corporation
Supplier's Name : Sony Corporation
Supplier's Address : 1-7-1 Kounan Minato-ku Tokyo 108-0075 Japan
Information Telephone : Japan +81-3-6748-4005 (Sony Corporation)
Emergency Telephone : Japan +81-24-958-3811 (Sony Energy Devices Corporation)
Date Prepared : July 7, 2008

SECTION MATERIAL AND INGREDIENTS INFORMATION

Important Note The battery should not be opened or burned since the following ingredients contained within, or their discharge or combustion products, could be harmful under some circumstance if exposed.

Material or Ingredients
Cathode : Manganese Dioxide (CAS# 1313-13-9)
 Graphite (CAS# 7782-42-5)

Anode : Metallic Lithium (0.062g) (CAS# 7439-93-2)

Electrolyte : Dimethoxyethane (CAS# 110-71-4)
 Propylene Carbonate (CAS# 108-32-7)
 Lithium Perchlorate (CAS# 7791-03-9)

Others : Heavy Metals such as Mercury, Cadmium and Lead are not added in the battery.

SECTION FIRE AND EXPLOSION HAZARD DATA

In case of fire, use Co₂ or dry chemical extinguishers.

SECTION HEALTH HAZARD DATA

Under normal conditions of use, these chemicals are contained in sealed can; therefore, risk of exposure occurs if the battery is swallowed or mechanically abused.

Swallowing : Ingestion of a battery can be harmful. Contents of an opened battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract. In either case, do not induce vomiting nor give food or drink. Seek medical attention immediately. CALL NATIONAL BATTERY INGESTION HOTLINE for advice and follow-up (U.S.A. 202-625-3333) collect, day or night.

Inhalation : Contents of an opened battery can cause respiratory irritation. Provide fresh air and call a doctor.

Skin Contact : Contents of an opened battery can cause skin irritation. Wash skin with soap and water.

Eye Contact : Contents of an opened battery can cause eye irritation. Immediately flush eyes thoroughly with water for at least 15 minutes. Seek medical attention.

SECTION	PRECAUTIONS FOR SAFE HANDLING AND USE
Storage	: Store in a cool, well-ventilated area. Elevated temperatures can result in shortened battery life. Since short circuit can cause burn hazard and leak or explode hazard, do not batteries jumbled in bulk containers.
Handling	: Do not short. Do not mix different type batteries or mix new and old ones together. Do not directly heat, solder or throw into fire. Such unsuitable use can cause leakage, explosion or fire.
Charging	: This battery is not designed for recharging. To do so can cause battery leakage or explosion.
Disposal	: Dispose in accordance with applicable federal state and local regulations.
CAUTION	: MAY EXPLODE OR LEAK IF INSERTED INCORRECTLY, SHORTED, DISASSEMBLED, HEATED, DISPOSED OF IN FIRE, OR RECHARGED. KEEP AWAY FROM SMALL CHILDREN. IF SWALLOWED, PROMPTLY SEE A DOCTOR.

SECTION	TRANSPORTATION
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Lithium batteries containing no more than 1g/cell and 2g/battery of lithium can be treated as “non-dangerous goods” under the United Nations recommendations on the Transport of Dangerous Goods, Special Provision 188, provided that packaging is strong and prevent the products from short-circuit.

With regard to air transport, the International Civil Aviation Organization (ICAO) Special Provision A45 accepts the above UN Recommendation as is; further, the International Air Transport Association (IATA) adopts ICAO Provision A45. In addition, the regulations of the US Department of Transportation for land, sea and air transportation are based on the UN Recommendations.

The Sony Lithium Manganese Dioxide Battery is all applicable to the UN Recommendations/Special Provision 188 (Special Provision A45 of the ICAO Technical Instructions) and treated as “non-dangerous goods”.

SECTION	SPECIAL PROTECTION INFORMATION
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Respiratory Protection	: Not necessary under normal use.
Ventilation	: Not necessary under normal use.
Eye Protection	: Not necessary under normal use.
Protective Gloves	: Not necessary under normal use.

DISCLAIMER

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SAFETY DATA SHEET

Issuing Date No data available

Revision Date 21-Oct-2014

Revision Number 1



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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Black Toner for B411, B431, MB451, MB461, MB471, MB491, MPS4200, MPS4700

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Ink and toners

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name Oki Data Americas, Inc.

Supplier Address 2000 Bishops Gate Blvd.
Mount Laurel
NJ
08054
US

Supplier Phone Number Phone:800-654-3282
Fax:none
Contact Phone856-222-7017

Supplier Email robert.alleger@okidata.com

Emergency telephone number

2. HAZARDS IDENTIFICATION

Classification


This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Carcinogenicity	Category 2
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GHS Label elements, including precautionary statements



Emergency Overview

Signal word	Warning		
Hazard Statements Suspected of causing cancer			
			
Appearance	Black	Physical state	Powder(s) Solid
			Odor Odorless

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

100.82% of the mixture consists of ingredient(s) of unknown toxicity

Other information

No information available

Interactions with Other Chemicals

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Third Party Formulation (TP # 1183616)	Proprietary	1 - 5	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES



First aid measures

General Advice	Immediate medical attention is required.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Inhalation	Remove to fresh air. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Third Party Formulation (TP # 1183616)	TWA: 3 mg/m ³ inhalable fraction	TWA: 3.5 mg/m ³ (vacated) TWA: 3.5 mg/m ³	IDLH: 1750 mg/m ³ TWA: 3.5 mg/m ³ TWA: 0.1 mg/m ³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

Appropriate engineering controls



Engineering Measures
 Showers
 Eyewash stations
 Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state	Powder(s), Solid	Odor	Odorless
Appearance	Black	Odor Threshold	No information available
Color	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	No data available	None known	
Melting / freezing point	No data available	None known	
Boiling point / boiling range	No data available	None known	
Flash Point	No data available	None known	
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air			
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	No data available	None known	
Vapor density	No data available	None known	
Specific Gravity	No data available	None known	
Water Solubility	Insoluble	None known	
Solubility in other solvents	No data available	None known	
Partition coefficient: n-octanol/water	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Dynamic viscosity	No data available	None known	
Explosive properties	No data available		
Oxidizing properties	No data available		

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	



10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

None known based on information supplied.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Third Party Formulation (TP # 1183616)	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA



Third Party Formulation (TP # 1183616)	A3	Group 2B		X
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ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity Contains a known or suspected carcinogen. Carbon black has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation.

Target Organ Effects Respiratory system. Eyes. Skin. Gastrointestinal tract (GI). Lymphatic System. Lungs.

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document
Not applicable

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Third Party Formulation (TP # 1183616)				24h EC50: > 5600 mg/L

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Other adverse effects

No information available.



13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Dispose of contents/containers in accordance with local regulations.

California Hazardous Waste Codes 331

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATION

DOT Proper Shipping Name Hazard Class	NOT REGULATED NON REGULATED N/A
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TDG	Not regulated
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MEX	Not regulated
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ICAO	Not regulated
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IATA Proper Shipping Name Hazard Class	Not regulated NON REGULATED N/A
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IMDG/IMO Hazard Class	Not regulated N/A
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RID	Not regulated
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ADR	Not regulated
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ADN	Not regulated
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15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations



SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Third Party Formulation (TP # 1183616) -	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Third Party Formulation (TP # 1183616)	X	X	X		X

International Regulations

Mexico

National occupational exposure limits

Component	Carcinogen Status	Exposure Limits
Third Party Formulation (TP # 1183616) (1 - 5)		Mexico: TWA 3.5 mg/m ³ Mexico: STEL 7 mg/m ³

Mexico - Occupational Exposure Limits - Carcinogens

Canada

WHMIS Hazard Class

Not determined

16. OTHER INFORMATION

NFPA	Health Hazards 1	Flammability 0	Instability 0	Physical and Chemical Hazards - Personal Protection X
HMIS	Health Hazards 1*	Flammability 0	Physical Hazard 0	

Chronic Hazard Star Legend * = Chronic Health Hazard



Prepared By	Product Stewardship 23 British American Blvd. Latham, NY 12110 1-800-572-6501
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Revision Note	No information available

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End of Safety Data Sheet