

402E ELECTRONIC SUPER DUSTER

Safety Data Sheet

Section 1: Identification**Product Identifier and Other Means of Identification****Product Identifier:** 402E**Other Means of Identification:** Electronic Super Duster / Super Duster Électronique**Related Part #** 402E**Recommended Use and Restriction on Use****Use:** Duster for electronics maintenance**Uses Advised Against:** Not available**Details of Manufacturer or Importer****Manufacturer**MG Chemicals
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CANADA**☎** +1-800-340-0772**FAX** +1-800-340-0773**E-MAIL** support@mgchemicals.com**WEB** www.mgchemicals.com**☎** +1-905-331-1396**FAX** +1-905-331-2682**COURRIEL** info@mgchemicals.com**E-MAIL** (Competent Person): sds@mgchemicals.com**Emergency Phone Number****For hazardous material incidents ONLY** (leaks, spills, fires, exposures or accidents)
USA or CANADA—Call Verisk 3E at **+1-866-519-4752** or **+1-760-476-3962**
(Service access code: 335388)**For emergencies involving the transport of dangerous goods;** 24/7 service
CANADA—Call CANUTEC collect at **+1-613-996-6666** or ***666** on cellular phones

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Section 2: Hazard(s) Identification

Classification of Hazardous Chemical

GHS Categories

Based on available data, this product does not meet the HCS 2012 or WHMIS 2015 classification criteria.

The product is classified as an article and is exempted from GHS classification, but information is provided herein in good faith, for information only.

Under normal conditions of use, the lithium-ion battery is embedded in the device; therefore, it doesn't present immediate physical or health hazards. But if the battery is damaged, opened, or burned, it can lead to physical hazards, such as fire, as well as to health hazards due to hazardous chemicals exposure via inhalation, skin contact, eye contact, and ingestion.

Label Elements

Signal Word	<i>No signal word</i>
Pictograms	Hazard Statements
<i>None mandated</i>	None

Hazards Not Otherwise Classified

Other Criteria	Hazard Statements/Precautionary Statement	Signal Word	Pictograms
None	None	None	None

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Section 3: Composition/Information on Ingredients

CAS #	Chemical Name	%(weight)
12190-79-3	lithium cobalt oxide	15-40%
7782-42-5	graphite	10-30%
21324-40-3	lithium hexafluorophosphate	10-30%
7440-50-8	copper	7-13%
7429-90-5	aluminum	5-10%
7440-02-0	nickel	1-5%

Section 4: First-Aid Measures

<i>Exposure Condition</i>	<i>GHS Code/Symptoms/Precautionary Statements</i>
IF IN EYES	P305 + P351 + P338
Immediate Symptoms	Low toxicity: <i>redness, mild irritation</i>
Response	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN	P302 + P352
Immediate Symptoms	Low toxicity: <i>mild irritation</i>
Response	Wash with plenty of water.
IF INHALED	P304 + P340
Immediate Symptoms	Low toxicity
Response	Remove person to fresh air and keep comfortable for breathing.
IF SWALLOWED	P301 + P330, P331
Immediate Symptoms	Low toxicity
Response	Rinse mouth. Do NOT induce vomiting.

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Section 5: Fire-Fighting Measures

Extinguishing Media	Use extinguishing media suitable for surrounding materials. For battery fire, use metal fire extinguishing powder or dry sand. Avoid water extinguishing media.
Specific Hazards	Not flammable or combustible but burns if involved in a fire.
Combustion Products	Produces carbon oxides (CO, CO ₂) and lithium oxides (Li ₂ O), cobalt oxides.
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

Section 6: Accidental Release Measures

Personal Protection	See personal protection recommendations in Section 8. For damaged batteries, wear chemically resistant gloves and safety glasses.
Precautions for Response	Clean spilled surfaces with soap and water and collect waste in an electronic waste container.
Environmental Precautions	Avoid releasing to the environment.
Containment Methods	Not applicable
Cleaning Methods	Collect waste in a container for electronic waste. Use soap and water to remove the last traces of residue.
Disposal Methods	Dispose of electronic waste at an official e-waste drop-off point.

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Section 7: Handling and Storage

Prevention

Keep out of reach of children.

Do not open, take apart, crush or burn the battery cell.

Do not allow terminals to short circuit.

Do not expose to high heat or fires. Avoid direct sunlight.

Avoid eye or skin contact.

Handling

Wear eye protection.

Storage

For long term storage, keep between -10 °C to 35 °C.

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Section 8: Exposure Controls/Personal Protection

Substances with Occupational Exposure Limit Values

Chemical Name	Country or Vendor	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
Lithium cobalt oxide (Cobalt and inorganic compounds as cobalt) (fumes or dust)	ACGIH	0.02 mg/m ³	Not established
	U.S.A. OSHA	0.1 mg/m ³	Not established
	Canada AB	0.02 mg/m ³	Not established
	Canada BC	0.02 mg/m ³	Not established
	Canada ON	0.02 mg/m ³	Not established
	Canada QC	0.05 mg/m ³	Not established
Graphite	ACGIH	2 mg/m ³	Not established
	U.S.A. OSHA	15 mppcf	Not established
	Canada AB	2 mg/m ³	Not established
	Canada BC	Not established	Not established
	Canada ON	2 mg/m ³	Not established
	Canada QC	2.5 mg/m ³	Not established
Copper (dust)	ACGIH	1 mg/m ³	Not established
	U.S.A. OSHA	Not established	Not established
	Canada AB	1 mg/m ³	Not established
	Canada BC	Not established	Not established
	Canada ON	1 mg/m ³	Not established
	Canada QC	Not established	2 mg/m ³
Aluminum (metal and insoluble compounds)	ACGIH	1 mg/m ³	Not established
	U.S.A OSHA	15 mg/m ³	Not established
	Canada AB	2 mg/m ³	Not established
	Canada BC	Not established	Not established
	Canada ON	1 mg/m ³	Not established
	Canada QC	Not established	Not established
Nickel	ACGIH	1.50 mg/m ³	Not established
	U.S.A OSHA	1 mg/m ³	Not established
	Canada AB	1.50 mg/m ³	Not established
	Canada BC	0.05 mg/m ³	Not established
	Canada ON	1 mg/m ³	Not established
	Canada QC	1 mg/m ³	Not established

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH¹, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the suppliers' SDSs were also consulted. Short term exposure limits (STEL) are usually for 15 min and long-term permissible exposure limits (PEL) for 8 h.

mppcf = Million of particles per cubic foot of air,
 based on impinge samples counted by light-field technique.

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Engineering Controls

Ventilation

Normal ventilation is generally adequate, except in enclosed or low-lying area.

Since the battery compounds are sealed in the device and battery pack, it is not available as a respiration hazard under normal conditions.

Personal Protective Equipment

Eye protection

Wear appropriate protective eyeglasses.

RECOMMENDATION: Ensure that glasses have side shields for lateral protection.

Skin Protection

For likely contacts with damaged cell content, use of protective nitrile gloves or other chemically resistant gloves.

Respiratory Protection

Under normal conditions of uses, no respiratory protection should be required due the low exposure to fume and vapors.

Above 10 x OEL, use a positive-pressure, air-supplied respirator or a self-contained breathing apparatus.

RECOMMENDATION: Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3. The respirator should be fitted to the employee by a professional.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

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Section 9: Physical and Chemical Properties

Physical State	Solid	Lower Flammability Limit	Not applicable
Appearance	Article	Upper Flammability Limit	Not applicable
Odor	Odorless	Vapor Pressure @20 °C	Not available
Odor Threshold	Not available	Vapor Density	Not applicable
pH	Not applicable	Relative Density @25 °C	Not applicable
Freezing/Melting Point	Not available	Solubility in Water	Insoluble
Initial Boiling Point	Not available	Partition Coefficient n-octanol/water	Not available
Flash Point	Not available	Auto-ignition Temperature	Not available
Evaporation Rate	Not available	Decomposition Temperature	90 °C [194 °F]
Flammability	Non applicable	Viscosity @40°C	Not available

Section 10: Stability and Reactivity

Reactivity	Not available
Chemical Stability	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Do not heat above 70°C. Avoid exposing material to humid conditions over a long period of time. Do not deform, disassemble, or crush.
Incompatibilities	Strong oxidizing agents, strong acids
Polymerization	Will not occur
Decomposition	May produce toxic fumes and may form peroxides.

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Section 11: Toxicological Information

Summary of Effects and Symptoms by Routes of Exposure

Eyes	Low Toxicity under normal conditions.
Skin	Low Toxicity under normal conditions.
Inhalation	Low Toxicity under normal conditions.
Ingestion	Low Toxicity under normal conditions.
Chronic	Low Toxicity—No known long-term effects.

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
lithium cobalt oxide	>5 000 mg/kg Rat	>2 000 mg/kg Rat	5.05 mg/L Rat 4 h (dust)
graphite	>2 000 mg/kg Rat	Not available	2 mg/L Rat 4 h
lithium hexafluorophosphate	≥50 mg/kg Rat	Waived-corrosive	Waived-corrosive
copper	>2 500 mg/kg Rat	>2 000 mg/kg Rat	5.11 mg/L Rat 4 h (dust)
aluminum	>2 000 mg/kg Rat	Not available	Not available
nickel	>5 000 mg/kg Rat	Not available	10.20 mg/L Rat 1 h (dust)

Note: Toxicity data from the ECHA database were consulted. The data from supplier SDSs were also consulted.

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Other Toxicological Effects

Skin corrosion/irritation	If cell ruptured, lithium hexafluorophosphate(1-) is a category 1A skin corrosive substance.
Serious eye damage/irritation	If cell ruptured, lithium hexafluorophosphate(1-) is a category 1 eye damaging substance.
Sensitization (allergic reactions)	Based on available data, the classification criteria are not met.
Carcinogenicity (risk of cancer)	Cobalt lithium dioxide [12190-79-3] IARC Group 2B: Possibly carcinogenic to humans ACGIH A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans CA Prop 65: Listed as a carcinogen NTP: Reasonably anticipated to be human carcinogen
Mutagenicity (risk of heritable genetic effects)	Based on available data, the classification criteria are not met.
Reproductive Toxicity (risk to sex functions)	If cell ruptured, cobalt lithium dioxide is a category 1B reproductive toxicant.
Teratogenicity (risk of fetus malformation)	Based on available data, the classification criteria are not met.
STOT-single exposure	If cell ruptured, fumes and vapors may be respiratory irritants.
STOT-repeated exposure	If cell ruptured, lithium hexafluorophosphate(1-) is a category 1 STOT-RE toxicant that damages bones and teeth. Ethylene carbonate is a category 2 STOT-RE toxicant that damages kidneys.
Aspiration hazard	Not applicable. There are no category 1 components, and the kinematic viscosity is > 20.5 mm ² /s.

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Section 12: Ecological Information

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (<http://echa.europa.eu>), and other reliable sources.

Cobalt lithium dioxide is a category 1, M = 10, chronic aquatic toxicant.

Acute Ecotoxicity

Based on available data, the classification criteria are not met.

Chronic Ecotoxicity

Based on available data, the classification criteria are not met.

Biodegradability

Not available

Bioaccumulation

Not available

Other Effects

Not available

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Section 13: Disposal Information

Dispose of contents in accordance with all local, regional, national, and international regulations. Dispose of electronic waste at an official e-waste drop-off point.

Section 14: Transport Information

402E Electronic Air Blower specifications

Battery Capacity: 2000 mAh

Battery Voltage: 11.1 V

Watt-hour Rating: 22.2 Wh

Battery weight: 137 g

Unit gross weight: 362 g

The lithium-ion battery in the air duster blower

- Meets test requirement of subsection 38.3 of Part III of the Manual of Tests and Criteria.
- Affords protection against damage and short circuit, including protection against contact with conductive materials within the same packaging that could lead to a short circuit.

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Ground

Refer to TDG regulations (Canadian Transportation of Dangerous Goods regulations);
USA DOT 49 CFR (Parts 100 to 185) **Regulations.**

TDG When no more than two packages of less than 5 kg net (or ≤ 36 units) of lithium battery each, this product can be shipped without hazardous shipping documentation or markings because the small battery exemption applies as per requirements of special provision 34.

If more than two packages in consignment, include lithium battery mark with UN ID 3481.

DOT When no more than two packages of less than 5 kg net weight (or ≤ 36 units) of lithium battery each, this product can be shipped without hazardous shipping documentation or markings because the small battery exemption applies as per requirements of §173.185(c) and special provision 181.

If more than two packages in consignment, include lithium battery mark with UN ID 3481.

402E case pack of 32 units = 4.38 kg net weight of batteries

UN Number: UN3481

Shipping name: LITHIUM ION BATTERIES
CONTAINED IN EQUIPMENT

Class: 9

Packing group: II

Marine pollutant: No



INSTRUCTION: Ensure that the regulatory requirements are met. When shipping, declare the presence of the lithium-ion battery in the device to postal carriers, couriers or transport companies.

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Air

Refer to ICAO-IATA Dangerous Goods Regulations.

When no more than two package of less than 5 kg each, this product can be shipped in Canada and the US without hazardous shipping documentation but must include the lithium battery mark with UN ID number 3481.

If package exceed 5 kg net weight of lithium battery, add text marking that shipment is Forbidden by Passenger Aircraft or use Cargo Aircraft Only label.

It is forbidden to transport by aircraft any batteries that are damaged, defective, recalled, or recycled.

402E case pack of 32 units = 4.38 kg net weight of batteries

UN Number: UN3481

Shipping name: LITHIUM ION BATTERIES
CONTAINED IN EQUIPMENT

Class: 9

Packing group: II

Marine pollutant: No



INSTRUCTION: Ensure that the regulatory requirements are met. When shipping, declare the presence of the lithium-ion battery in the device to postal carriers, couriers or transport companies.

Sea

Refer to IMDG regulations.

IMDG Can be shipped without hazardous shipping documentation or markings because the small battery exemption applies according to special provision 188.

402E case pack of 32 units = 4.38 kg net weight of batteries

UN Number: UN3481

Shipping name: LITHIUM ION BATTERIES
CONTAINED IN EQUIPMENT

Class: 9

Packing group: II

Marine pollutant: No



INSTRUCTION: Ensure that the regulatory requirements are met. When shipping, declare the presence of the lithium-ion battery in the device to postal carriers, couriers or transport companies.

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Section 15: Regulatory Information

Canada

Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)

All hazardous ingredients are listed on the DSL.

Hazardous Products Act (R.S.C., 1985, c. H-3)

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

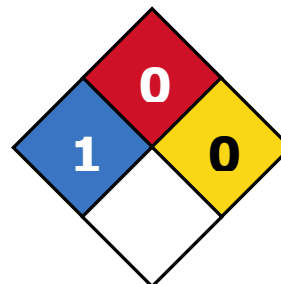
USA

Other Classifications

HMIS® RATING

HEALTH:	* 1
FLAMMABILITY:	0
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

CAA (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain substances that are listed as hazardous air pollutants.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product does not contain substances which are subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are listed on the TSCA active list.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, USA).

This product does not contain any of the listed substances.

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Europe

RoHS (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, PBDE's, DEHP, BBP, DBP, or DIBP and complies with European RoHS regulations.

WEEE (Waste Electrical and Electronic Equipment Directive)

This product is an electronics equipment and is therefore governed by this regulation.

Section 16: Other Information

SDS Prepared by Regulatory Department

Date of Review 16 August 2023

Supersedes 08 June 2023

Reason for Changes: Update to section 14.

Reference

1) ACGIH 2023 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2023).

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
EC50	Half maximal effective concentration
EL50	Half maximal effective loading
IARC	International Agency for Research on Cancer
NOELR	No observable effect loading ratio
NTP	National Toxicology Program
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
SDS	Safety Data Sheet
STEL	Short-Term Exposure Limit
TCLo	Lowest published toxic concentration
TWA	Time Weighted Average
VOC	Volatile Organic Content

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Technical Queries Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

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