Safety Data Sheet

Section 1 – Identification

Product Identifier: Brush Delite

Other means of Identification: Brush Cleaner

Name and Address of Responsible Parties:

King Research, Inc
7025 W. Marcia Rd.
Milwaukee, WI 53223

Information Telephone #: 1-800-222-8160
24 Hr. Emergency Telephone Number: INFOTRAC- 1-800-535-5053
International 24 Hr. Emergency Telephone Number: INFOTRAC – 1-352-323-3500
Contract # - 106253

Section 2 – Hazards Identification

Classification of the Chemical: White, granular powder with a chlorine odor

This material is classified as hazardous under OSHA regulations (29 CFR 1910.1200) (Hazcom 2012).

Hazardous classification: Oxidizer, Solid – Category 3
Skin Corrosion – Category 1B
Serious Eye Damage – Category 1
Acute Aquatic Toxicity – Category 1

Label elements:

Signal Word: Danger

Hazard Statements: May intensify fire; oxidizer
Causes severe skin burns and eye damage
Very toxic to aquatic life

Precautionary Statements: Keep away from heat
Keep away from clothing and other combustible materials
Take any precaution to avoid mixing with combustibles
Wash skin thoroughly after handling

Section 2 – Hazards Identification (continued)

Do not breathe dust or mists
Wear protective gloves and eye protection/face protection
Avoid release to the environment

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Hazard Pictogram(s):

Other Hazards not otherwise classified: Not Applicable

Section 3 – Composition/Information on Ingredients

Chemical Name, Common Name	CAS #	Concentration wt/wt(*)
Lithium Hypochlorite	13840-33-0	28 – 35%
Lithium Hydroxide	7732-18-5	1 – 3%
Sodium Sulfate	7757-82-6	11 – 21%
Lithium Chloride	7747-41-8	2 – 4%
Lithium Carbonate	554-13-2	1 – 4%
Lithium Chlorate	36355-96-1	2 – 5%

- **Note: The exact concentrations of the chemical(s) above are being withheld as a trade secret.**

Section 4 – First-Aid Measures

Description of first aid measures:

Inhalation: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, see a medical doctor. If breathing has stopped, give artificial respiration and see a medical doctor immediately.

Skin contact: Immediately flush with plenty of water while removing contaminated clothing and/or shoes, and thoroughly wash with soap and water. Obtain immediate medical attention. Contact a medical doctor if necessary.

Section 4 – First-Aid Measures

Eye contact: Immediately flush with water for at least 15 minutes, lifting the upper and lower eyelids intermittently. See a medical doctor or ophthalmologist immediately.

Ingestion: Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a medical doctor immediately.

Most important symptoms and effects, both acute and delayed:
Can cause severe skin damage.
Can cause severe eye damage.
Ingestion can cause gastrointestinal damage, nausea, vomiting, diarrhea.

Indication of any immediate medical attention and special treatment needed:
Treat symptomatically

Section 5 – Fire-Fighting Measures

Extinguishing media:
Suitable extinguishing media: Use water only
Unsuitable extinguishing media: Do not use dry chemical, CO_2, or Halon.

Special hazards arising from the substance or mixture: Oxidizer. Contact with easily oxidizable or combustible materials can cause fire or explosion upon ignition from any source.

Flammability classification: (OSHA 29 CFR 1910.106) (Hazcom 2012): Not flammable by OSHA/WHMIS criteria.

Hazardous combustion products: Oxygen and toxic chlorine vapors.

Special protective equipment and precautions for firefighters: Wear full protective clothing and self-contained breathing apparatus (SCBA) approved for fire fighting. This is necessary to protect against the hazards of heat, products of combustion, and oxygen deficiency. Do not breathe smoke, gases, or vapors generated.

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:
Keep combustibles away from spilled material. Before cleanup measures begin, review the entire SDS with particular attention to section 3, Emergency Overview and Potential Health Effects, and Section 8, Recommended Personal Protective Equipment.

Section 6 – Accidental Release Measures (Continued)

Methods and materials for containment and clean up:
With a clean shovel, place into clean dry container, and cover loosely. Dispose of waste according to local and Federal laws and regulations.

Section 7 – Handling and Storage

Precautions for safe handling:
Do not get in eyes, on skin, or on clothing. Avoid breathing dust. Wash thoroughly after handling.

Conditions for safe storage:
Store away from readily oxidizable materials, strong acids, and flammable materials. Protect from moisture. Keep container closed.

Section 8 – Exposure Controls/Personal Protection

Exposure limits:

Chemical Name	TWA (ACGIH)	PEL (OSHA)
PNOC[1], inhalable particulate	10 mg/m^3	N/A
PNOC[1], respirable particulate	3 mg/m^3	N/A

PNOC[1] = Particulates not otherwise classified.

Exposure controls:

Ventilation and engineering measures: Use local exhaust ventilation to keep airborne concentrations below exposure limits.

Respiratory measures: When adequate ventilation is not available, wear a NIOSH/MSHA respirator approved for protection against inorganic and hypochlorite dusts.

Skin Protection: Wear protective gloves. Where extensive exposure to the product is possible, use resistant apron/suit and boots.

Eye/face Protection: Goggles or safety glasses with side shields.

Other Protective equipment: Ensure that eyewash stations and a safety shower are close to the workstation(s).

General hygiene considerations: Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. Wash hands after handling. Remove and wash all contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

Section 9 – Physical and Chemical Properties

Appearance: White granular solid
Odor: Burning, chlorine-like odor
Odor threshold: Not available
PH: (1% Solution) @ 25°C = 11
Melting point: Decomposes at 135°C (275°F)
Boiling point and boiling range: Not applicable
Flash point: Not applicable
Evaporation point (Butyl Acetate=1): Not applicable
Flammability (method determination): Not applicable
Lower flammability limit (% by vol.): Not available
Upper flammability limit (% by vol.): Not available
Vapor pressure: Not applicable
Vapor density: Not applicable
Relative density: 0.9 – 1.0
Solubility in water: 43% by weight at 25°C (77°F)
Partition Coefficient (n-octanol/water): Not available
Auto ignition temperature: Not available
Decomposition temperature: Decomposes at 135°C (275°F)
Viscosity: Not applicable
Volatiles (% by wt) = 1.32%
Volatile organic compounds: Not applicable
Other physical/chemical comments: Oxidizer. Promotes combustion. Contact with combustible materials may cause fire.

Section 10 – Stability and Reactivity

Reactivity: Oxidizer. Promotes combustion. Contact with combustible materials may cause fire.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: Contact with combustible materials. Contamination with moisture.

Incompatible materials: Acids, oxidizable materials, combustible materials.

Hazardous decomposition products: Oxygen, lithium hydroxide, lithium chlorates.

Section 11 – Toxicological Information

Brush Delite Formulation Toxicity

Eye Contact	Severely Irritating (Rabbit)
Skin Contact	Non-Corrosive, Corrositex In-Vitro Skin Corrosion (34.6 wt% lithium hypochlorite)
Skin Absorption	Dermal LD_{50}: 8100 mg/kg (Rabbit)
Ingestion	Oral LD_{50}: 555 mg/kg (Rat)
Inhalation	Inhalation LC_{50}: 2.0 mg/L (rat)

Acute Effects from Overexposure: This product is severely irritating/corrosive to the eyes (may cause blindness), skin, respiratory tract, and mucous membranes.

Chronic Effects from Overexposure: Continuous inhalation exposure may cause lung damage.

Sensitization: Non-Sensitizing (guinea pig)

Carcinogenicity: No components are listed as carcinogens by ACGIH, IARC, OSHA, or NTP.

Mutagenicity: this product was not mutagenic or genotoxic in several in vitro tests

Reproductive Toxicity: This product was not mutagenix or genotoxic in several in vitro tests.

Section 12 – Ecological Information

Ecotoxicological Information:
Mallard Duck: Acute Oral LD_{50} = 1,960 mg/kg; 5 Day Dietary LC_{50} > 17,240 ppm (no deaths at maximum dose)
Bobwhite Quail: 5 Day Dietary LC_{50} > 17,240 ppm
Rainbow Trout: 96 hour LC_{50} = 0.69 mg/L
Bluegill: 96 hour LC_{50} = 0.97 mg/L
Daphnia: 48 hour LC_{50} = 0.37 µg/L

Chemical Fate Information: No data available for this product.

Section 13 – Disposal Information

Handling for disposal: Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in Sections 7 and 8.

Section 13 – Disposal Information (Continued)

Methods of disposal: Dispose in accordance with all applicable federal, state, provincial and local regulation. Contact your federal, state, provincial and local authorities for specific rules.

Section 14 – Transportation Information

US 49 CFR/DOT Hazard Classification:
UN No.: UN1479
UN Proper shipping name: Oxidizing Solid, N.O.S. (Lithium Hypochlorite, mixture)
Transport hazard class: 5.1, Oxidizer
Labels: Oxidizer
Packing group: III
Marine Pollutant: No
PIH: Not designated Poison Inhalation Hazard by US DOT.

Section 15 – Regulatory Information

US Federal Information:
Section 311 Hazard Category (40 CFR 370): Immediate (acute) health hazard, reactive.

Section 313 Reportable Ingredients (40 CFR 372): This product contains lithium carbonate which is subject to the reporting requirements of section 313 of the Emergency Planning and Right-To-Know Act of 1986.

Section 302 Extremely Hazardous Substances (40 CFR 355): Not Listed

CERCLA Hazardous Substance (40 CFR 302.4): Not Listed

TSCA Sec 12B Export Notification: This product is not subject to TSCA 12 (b) Export Notification Requirements.

TSCA Inventory Status (40 CFR 710): All components except for Lithium Chlorate, and impurity, are listed.

Canada WHMIS: Product Identification Number: 1479
Hazard Classification: Class C (Oxidizer), Class E (Corrosive)
Ingredient Disclosure List: Not Listed

Section 16 – Other Information

NFPA – National Fire Protection Association
Health -3 Flammability -0 Reactivity -1 Special - OXY

Section 16 – Other Information (Continued)

Abbreviations Legend:
ACGIH: American Conference of Governmental Industrial Hygienist
CAS: Chemical abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1986
CFR: Code of Federal Regulations
CSA: Canadian Standards Association
DOT: Department of Transportation
ECOTOX: U.S. EPA Ecotoxicology Database
EINECS: European Inventory of Existing Commercial chemical Substances
EPA: Environmental Protection agency
HSDB: Hazardous Substances database
IARC: International Agency for Research on Cancer
IBC: Intermediate Bulk Container
IUCLID: International Uniform Chemical Information Database
LC: Lethal Concentration
LD: Lethal Dose
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OECD: Organization for Economic Cooperation and Development
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

Disclaimer

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