



Product Identifier: Luma Brite II
Revision Date: 04/09/2015

SAFETY DATA SHEET

This SDS complies with 29 CFR 1910.1200 (Hazard Communication Standard)
IMPORTANT: Read this SDS before handling & disposing of this product. Pass this information on to employees, customers, and users of this product.

1. Identification

1.1. Product identifier

Product Identity Luma Brite II
Alternate Names Luma Brite II
Product Code 590-06

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

Intended use Aluminum Cleaner & Brightener
Application Method See Label Instructions

1.3. Details of the supplier of the safety data sheet

Company Name Diamond Products Inc.
1216 Bozeman Ave.
Helena, MT 59601

Emergency

24 hour Emergency Telephone No. Infotrac: 1 800-535-5053
Emergency: (406) 449-6570
Customer Service: Diamond Products Inc. (406) 449-6570

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Acute Tox. 3;H301 Toxic if swallowed.
Acute Tox. 2;H310 Fatal in contact with skin.
Acute Tox. 3;H331 Toxic if inhaled.
Skin Corr. 1A;H314 Causes severe skin burns and eye damage.
Eye Dam. 1;H318 Causes serious eye damage.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Danger

H301 Toxic if swallowed.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

[Prevention]:

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P262 Do not get in eyes, on skin, or on clothing.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.

P302+350 IF ON SKIN: Gently wash with soap and water.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

P311 Call a POISON CENTER or doctor / physician.

P321 Specific treatment (see information on this label).

P363 Wash contaminated clothing before reuse.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Phosphoric acid CAS Number: 0007664-38-2	1.0 - 10	Skin Corr. 1B;H314 (> 25%)	[1][2]
Hydrofluoric acid CAS Number: 0007664-39-3	1.0 - 10	Acute Tox. 2;H330 Acute Tox. 1;H310 Acute Tox. 2;H300 Skin Corr. 1A;H314	[1][2]
Hydrochloric acid CAS Number: 0007647-01-0	1.0 - 10	Skin Corr. 1B;H314 STOT SE 3;H335	[1][2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, get immediate medical attention. If breathing has stopped begin artificial respiration. Be sure patient is properly examined before allowing to go home or to return to work.
Eyes	If even minute quantities of hydrofluoric acid enter the eyes, they should be immediately irrigated with running water for at least 15 minutes. The eyelids should be held apart during the irrigation to insure contact of water with all accessible tissue of the eyes lids. A 1% calcium gluconate solution should be used to wash the eyes thoroughly for 5-10 minutes and then instilled every 2-3 hours as drops. A physician, preferably an eye specialist, should be called in at once.
Skin	Workers who have had contact with hydrofluoric acid should be subjected immediately to a drenching shower of water. The clothing should be removed as rapidly as possible, even while the victim is in the shower, and medical assistance obtained immediately. It is essential that the exposed area be washed with copious quantities of water for a sufficient period of time to remove all hydrofluoric acid from the skin. Calcium Gluconate Gel (2.5%) should be rubbed in continuously until pain has completely subsided. As an alternate to the Gel treatment, an iced aqueous or alcoholic solution, 0.13% (1:75) of benzalkonium chloride ("zephian" chloride); an iced 70% alcohol solution; or an ice-cold saturated solution of magnesium sulfate (Epsom salt) should be applied for at least 30 minutes. If the burn is in such an area that it is impractical to immerse the part, then the iced solution should be applied with saturated compresses which should be changed at least every two minutes. The physician should be available by then to administer further treatment before the completion of the iced solution treatment. If, however, a physician is not available by that time, the treatment with one of the iced solutions should be continued for two to four hours. It is then permissible to apply a generous quantity of paste made from powdered magnesium oxide and glycerin, freshly prepared. This is prepared by the addition of U.S.P. Glycerin to U.S.P. magnesium oxide to form a thick paste. Oils and greases should not be applied except under instructions from a physician.
Ingestion	Do NOT induce vomiting. Dilute product by giving large quantities of water or milk. Call your nearest poison control center for further action and seek medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

Overview

EFFECTS OF OVEREXPOSURE

Hydrofluoric acid is extremely irritating and corrosive to the skin and mucous membranes. Inhalation of the vapor may cause ulcers of the Upper respiratory tract. Concentrations at 50 to 200 ppm are dangerous. Hydrofluoric acid produces severe skin burns which are slow in healing. The subcutaneous tissue may be affected, becoming blanched and bloodless. Gangrene of the affected areas may follow.

Symptoms: Conjunctivitis, corneal burns; severe skin burns with ulceration; pain behind the breastbone, cough, spitting blood, dyspnea, difficult breathing, bronchopneumonia, cyanosis, shock, muscle spasms, convulsions, jaundice, oliguria, albuminuria, hematuria, nausea, vomiting, abdominal pain, diarrhea; burns and corrosion of mouth, esophagus,

	stomach and small bowel.
	See section 2 for further details.
Inhalation	Toxic if inhaled.
Eyes	Causes serious eye damage.
Skin	Fatal in contact with skin. Causes severe skin burns and eye damage.
Ingestion	Toxic if swallowed.

5. Fire-fighting measures

5.1. Extinguishing media

NFPA (CO₂, chemical or foam) extinguisher or water spray.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Chlorides and fluorides as well as hydrogen gas on contact with certain metals. These fumes can be highly corrosive.

Avoid breathing dust / fume / gas / mist / vapors / spray.

Do not get in eyes, on skin, or on clothing.

5.3. Advice for fire-fighters

NIOSH approved fully enclosed self-contained breathing apparatus with a plastic window in the hood.

ERG Guide No. 154

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Neutralize with lime (Calcium Carbonate) and dilute with copious quantities of water, followed by lime slurry.

Dispose of in accordance with local, state and federal regulations.

7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin or eyes and breathing vapors. This product is extremely corrosive and may cause serious burns which may not be immediately painful or visible. In case of contact see emergency first aid procedures.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Bleach, glass, ceramics, light metals

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0007647-01-0	Hydrochloric acid	OSHA	C 5 ppm (7 mg/m ³)
		ACGIH	Ceiling: 2 ppm Revised 2003
		NIOSH	C 5 ppm (7 mg/m ³)
		Supplier	No Established Limit
0007664-38-2	Phosphoric acid	OSHA	TWA 1 mg/m ³
		ACGIH	TWA: 1 mg/m ³ STEL: 3 mg/m ³
		NIOSH	TWA 1 mg/m ³ ST 3 mg/m ³
		Supplier	No Established Limit
0007664-39-3	Hydrofluoric acid	OSHA	TWA 3 ppm
		ACGIH	Ceiling: 2 ppm
		NIOSH	TWA 3 ppm (2.5 mg/m ³) C 6 ppm (5 mg/m ³) [15-minute]
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0007647-01-0	Hydrochloric acid	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
0007664-38-2	Phosphoric acid	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007664-39-3	Hydrofluoric acid	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory

Use acid gas respirator or self-contained breathing device.

Eyes

Use chemical goggles.

Skin

Safety boots and a rubber apron should be worn when handling this product. Wear plastic or rubber-coated gloves.

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Mobile Colorless Liquid
Odor	Sharp Acid
Odor threshold	Not Measured
pH	1% solution: 1.0 or less
Melting point / freezing point	Not applicable
Initial boiling point and boiling range	155 - 215°F
Flash Point	Non-flammable
Evaporation rate (Ether = 1)	Not available
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not applicable Upper Explosive Limit: Not applicable
Vapor pressure (Pa)	130 @ 20°C
Vapor Density	0.714 (Air = 1)
Specific Gravity	1.10 mg/ml
Solubility in Water	Complete
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
Viscosity (cSt)	Not available
VOC Content	Not available

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous polymerization will not occur; however, non-hazardous endothermic polymerization may occur in both the liquid and gaseous phases.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Material can generate explosive hydrogen gas on contact with certain metals and reacts violently with water.

10.4. Conditions to avoid

Uncontrolled contact with water and light active metals such as aluminum, brass or tin can generate excessive heat which will cause pressure build-up.

10.5. Incompatible materials

Bleach, glass, ceramics, light metals

10.6. Hazardous decomposition products

Chlorides and fluorides as well as hydrogen gas on contact with certain metals. These fumes can be highly corrosive.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Phosphoric acid - (7664-38-2)	No data available	No data available	No data available	No data available	No data available
Hydrofluoric acid - (7664-39-3)	No data available	No data available	No data available	No data available	1,610.00, Rat - Category: NA
Hydrochloric acid - (7647-01-0)	900.00, Rabbit - Category: 4	5,010.00, Rabbit - Category: NA	781.00, Mouse - Category: NA	No data available	3,124.00, Rat - Category: 4

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	3	Toxic if swallowed.
Acute toxicity (dermal)	2	Fatal in contact with skin.
Acute toxicity (inhalation)	3	Toxic if inhaled.
Skin corrosion/irritation	1A	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Phosphoric acid - (7664-38-2)	Not Available	Not Available	Not Available
Hydrofluoric acid - (7664-39-3)	660.00, Leuciscus idus	270.00, Daphnia magna	Not Available
Hydrochloric acid - (7647-01-0)	282.00, Gambusia affinis	260.00, Crangon crangon	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)
14.1. UN number	NA1760
14.2. UN proper shipping name	NA1760, Compounds, cleaning liquid, (Hydrofluoric Acid & Phosphoric Acid), 8, II
14.3. Transport hazard class(es)	DOT Hazard Class: 8
14.4. Packing group	II
14.5. Environmental hazards	
IMDG	Marine Pollutant: No
14.6. Special precautions for user	No further information

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	D1A E
US EPA Tier II Hazards	Fire: No

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): Yes

Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs (lbs):

Hydrochloric acid (5,000.00)

Hydrofluoric acid (100.00)

Phosphoric acid (5,000.00)

EPCRA 302 Extremely Hazardous:

Hydrochloric acid

Hydrofluoric acid

EPCRA 313 Toxic Chemicals:

Hydrochloric acid

Hydrofluoric acid

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Hydrochloric acid

Hydrofluoric acid

Phosphoric acid

Pennsylvania RTK Substances (>1%):

Hydrochloric acid

Hydrofluoric acid

Phosphoric acid

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H300 Fatal if swallowed.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H330 Fatal if inhaled.

H335 May cause respiratory irritation.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information herein is presented in good faith and believed to be correct as of the date hereof. However, Diamond Products, Inc., makes no representation as to the completeness and accuracy thereof. Users must make their own determination as to the suitability of the product for their purposes prior to use. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature with respect to the product or the information herein is made hereunder. Diamond Products, Inc., shall in no event be responsible for any damages of whatsoever nature directly or indirectly resulting from the publication or use of or reliance upon information contained herein.

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