FREESTYLE PHOTOGRAPHIC SUPPLIES
ARISTA®LITHO DEVELOPER POWDER
PART A

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Distributor: Freestyle Photographic Supplies
5124 Sunset Blvd., Hollywood, CA 90027
Product Name: **LITHO DEVLOPER POWDER**
Product Number: **751701P**
Product Use: Photographic developer.
Customer Information Phone Number: 1-800-292-6137
CHEMTREC®: 24 Hour Emergency Transport Phone Number: 1-800-424-9300
Date Reviewed: 03/26/2015
Version: 2.0

2. HAZARDOUS IDENTIFICATION

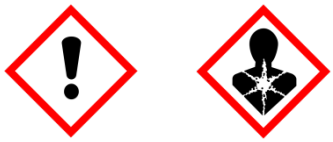
2.1 Classification of the substance or mixture

Health hazard

Acute toxicity, Oral (Category 4), H302
Serious eye damage (Category 1), H318
Skin sensitization (Category 1), H317
Germ cell mutagenicity (Category 2), H341
Carcinogenicity (Category 2), H351
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word: WARNING

Hazard statement(s)

H302	Harmful if swallowed
H317	May cause allergic skin reaction
H318	Causes severe eye damage
H341	Suspected of causing genetic defects
H351	Suspected of causing cancer
H410	Very toxic to aquatic life

Precautionary statement(s)

P201	Obtain special instructions before use
P261	Avoid breathing mist
P264	Wash skin thoroughly after handling
P270	Do not eat, drink, or smoke when using this product
P273	Avoid release into the environment
P280	Wear protective gloves, eye protection
P301 + P312	IF SWALLOWED; call a POISON CENTER or doctor/physician if you feel unwell
P302 + P352	IF ON SKIN: Wash with plenty of soap
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see supplemental first aid instructions on this label).
P330	Rinse mouth.
P333 +P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse
P391	Collect spillage
P501	Dispose of contents to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS	OHSA PEL	ACGIH TLV	Weight %
Formaldehyde Sodium Bisulfite	870-72-4	N.E.	N.E.	70-80
Hyroquinone	123-31-9	2mg/m³	2mg/m³	10-20
Potassium Bromide	17758-02-3	N.E.	N.E.	1-3

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

Inhalation: If symptomatic, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion: If swallowed, give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Skin Contact: Flush skin with plenty of water and wash with a non-alkaline skin cleaner. Wash contaminated clothes before reuse. Get medical attention if irritation develops.

Aggravated Medical Conditions: Individuals who are under the care of a physician or have chronic ailments, should consult a physician before using this product. Allergies, chronic asthma may be exacerbate by dust from this product.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use agent appropriate for surrounding fire.

5.2 Special Hazards arising from substance or mixture

Fire or excessive heat may cause production of hazardous decomposition products. Combustion Products: Oxides of sulfur and nitrogen and formaldehyde. Carbon dioxide and carbon monoxide in addition in working solution.

5.3 Advise for firefighters

Wear self-contained breathing NIOSH/MSHA approved apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Review fire and explosion hazards and safety precautions before proceeding with cleanup. Use appropriate personal protective equipment. Avoid contact with skin and eyes. Protect from inhalation of dust. Stop the spillage. If dry, sweep up chemical and place in hazardous waste container. If mixed, the spill. Prevent liquid from entering sewers, waterways or low areas. Absorb spillage in inert material. Soak up with sawdust, sand, or other absorbent material. Remove non-usable solid material and/or contaminated soil for disposal in an approved and permitted landfill.

6.2 Environmental precautions

Prevent liquid from entering sewers, waterways or low areas. Discharge to sewer requires approval of permitting authority and may require pre-treatment.

7. HANDLING AND STORAGE

7.1 Precations for safe handling

Store in a cool, dry, well-ventilated area. Keep containers closed. Do not store or consume food, drink, or tobacco where they may become contaminated with this material.

7.2 Conditions for safe storage, including any incompatibles

Do not store with incompatible materials. All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Triple rinse before disposal. Dispose of in a licensed facility.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

See Section 3.

8.2 Exposure controls

Use good personal hygiene when handling this product. Wash hands after use, before smoking, or using the toilet. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Personal protective equipment

Eye Protection: Safety glasses with side shields (or goggles).

Respiratory Protection: Wear OSHA approved dust filter respirator if TLV is to be exceeded. If hazardous decomposition products are likely to have been released, wear an Acid gas type respirator / formaldehyde or air-supplied respirator. For working solution none should be needed.

Skin protection: Latex, rubber, or neoprene waterproof gloves are recommended.

Body protection: Rubber or plastic apron.

Respiratory protection: Local exhaust ventilation is recommended. Ventilation must be adequate to keep hazardous ingredients below their exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance And Odor: Granular white powder, odorless.
Solubility In Water: Complete
Boiling Point: N.E.
Flash Point: Nonflammable
Flash Point Method: Not applicable
Auto ignition: Not applicable
LEL: Not applicable
UEL: Not applicable
Vapor Pressure: Negligible
Ph: > 7 for working solution
Specific Gravity: Not applicable
Melting Point: Not applicable
Freezing Point: Not applicable
Evaporation Rate: Not applicable
Vapor Density: Not applicable
Percent Volatile: 0
Molecular Weight: Not applicable
Pounds Per Gallon: 1:4 to make one gallon
V.O.C is 0

10. STABILITY AND REACTIVITY

10.1 Reactivity
Stable

10.2 Chemical stability
Conditions To Avoid: High temperatures

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible Materials
Strong acids; oxidizers, alkalis. Contact can liberate harmful gas.

10.6 Decomposition Products
May produce oxides of sulfur, nitrogen, and formaldehyde

11. TOXICOLOGICAL INFORMATION

11.1 Information of toxicological effects

Component information

Potassium Bromide 7758-02-3

Acute toxicity:
Oral: LD50 (rats): 3,070 mg/kg
Dermal: no data available
Inhalation: no data available
Skin irritation: no data available
Eye irritation: no data available
Carcinogenicity/mutagenicity: none

Hydroquinone 123-31-9

Acute toxicity:
Oral LD-50 (rat) 367.3 mg/kg (OECD Test Guidance 401)
Dermal LD-50 (rabbit) >2,000 mg/kg (OECD Test Guidance 402)
Inhalation: no data
Skin irritation: no data
Eye irritation: no data
Respiratory or Skin Sensitization (in vivo assay – mouse (OECD Test Guidance 429)
May cause sensitization by skin contact.
May cause allergic skin reaction.
Carcinogenicity/mutagenicity: none

Formaldehyde-sodium bisulfite 870-72-4

Acute toxicity:
Oral LD-50 (rat) 3,200 mg/kg
Inhalation: no data available
Dermal : No data available
I
Skin irritation: no data available
Eye irritation: no data available
Respiratory or Skin Sensitization: No data available
Carcinogenicity/mutagenicity: None

12. ECOLOGICAL INFORMATION

Component information

Potassium Bromide 7758-02-3

12.1 Toxicity

Toxicity to fish	LC50- Pimephales promelas (fathead minnow) –>30 mg/l – 96h

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Result of PBT and vPvB assessment
Assessment not available as chemical assessment not required/not conducted

Hydroquinone 123-31-9

12.1 Toxicity

Toxicity to fish	LC50-Oncorhynchusd mykiss (rainbow trout) – 0.4 -0.1 mg/l – 96h
Toxicity to daphnia and other aquatic invertebrates	LC50 – Daphnia magna (Water flea) – 0.13 – 48h
Toxicity to algae	EC50 – Pseudokirchneriella subcapitata (green algae) -0.335 mg/l – 72 h

12.2 Persistence and degradability

Biodegradability	Biotic/Aerobic – exposure time 14d Result: 86% - Readily biodegradable

12.3 Bioaccumulative potential

Bioaccumulation	Leuciscus idus (golden orfe) – 3d – 50 µNo data available Bioconcentration factor (BCF):40

12.4 Mobility in soil
No data available

12.5 Result of PBT and vPvB assessment
Assessment not available as chemical assessment not required/not conducted

12.5 Other adverse effects
Very toxic to aquatic life with long lasting effects.

Formaldehyde-sodium bisulfite 870-72-4

12.1 Toxicity

Toxicity to fish	No data available

12.2 Persistence and degradability No data available

12.3 Bioaccumulative potential No data available

12.4 Mobility in soil No data available

12.5 Result of PBT and vPvB assessment
Assessment not available as chemical assessment not required/not conducted

12.5 Other adverse effects No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

14. TRANSPORT INFORMATION

DOT (US)
Not regulated

15. REGULATORY INFORMATION

SARA 302 Components
The following components are subject to reporting levels established by SARA Title III, Section 302:

	Cas#	Revision Date
Hydroquinone	123-31-9	2007-07-01

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

	Cas#	Revision Date
Hydroquinone	123-31-9	2007-07-01

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

California Prop 65 Components
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or nay other reproductive harm.

TSCA
All ingredients in this finished product are listed on the EPA TSCA INVENTORY.

SCAQMD Rule 443.1

Photochemically Reactive: No
Maximum Grams of VOC per Liter: 0 g/L
Vapor Pressure: Negligible

16. OTHER INFORMATION

Full text of H-statements referred to under sections 2 and 3.

Acute toxicity, Oral (Category 4), H302
Serious eye damage (Category 1), H318
Skin sensitization (Category 1), H317
Acute aquatic toxicity (Category 1), H400

HMIS RATING

Health: 2
Flammability: 0
Reactivity: 0
Protective: B

OTHER ADDITIONAL INFORMATION: The information contained herein is based on the data available to us and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for the injuries from the use of the product described herein.

FREESTYLE PHOTOGRAPHIC SUPPLIES
ARISTA® LITHO DEVELOPER POWDER
PART B

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Distributor: Freestyle Photographic Supplies
5124 Sunset Blvd., Hollywood, CA 90027
Product Name: **LITHO DEVELOPER POWDER**
Product Number: **751701P**
Product Use: Photographic developer.
Customer Information Phone Number: 1-800-292-6137
CHEMTREC®: 24 Hour Emergency Transport Phone Number: 1-800-424-9300
Date Reviewed: 3/25/2015
Rev. 2.0

2. HAZARDOUS IDENTIFICATION

2.1 Classification of the substance or mixture

Health hazard

Causes severe eye irritation (Category 2A), H319

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal Word: WARNING

Hazard statement(s)

H319 Causes severe eye irritation Cat 2A

Precautionary statement(s)

P264 Wash skin thoroughly after handling
P280 Wear protective gloves, eye protection
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P363 Wash contaminated clothing before reuse
P391 Collect spillage
P501 Dispose of contents to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS	OHSA PEL	ACGIH TLV	Weight %
Sodium Carbonate	497-19-8	N.E.	N.E.	95-99

4.1 Description of first aid measures

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

Inhalation: If symptomatic, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion: Only induce vomiting at the instruction of medical personnel. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Skin Contact: Flush skin with plenty of water and wash with a non-alkaline skin cleaner. Wash contaminated clothes before reuse. Get medical attention if irritation develops.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use agent appropriate for surrounding fire.

5.2 Special Hazards arising from substance or mixture

Fire or excessive heat may cause production of hazardous decomposition products.
Combustion Products: Carbon and Sodium oxides..

5.3 Advise for firefighters

Wear self-contained breathing NIOSH/MSHA approved apparatus and protective clothing to prevent contact with skin and eyes. Fire or excessive heat may produce hazardous decomposition products.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Review fire and explosion hazards and safety precautions before proceeding with cleanup. Use appropriate personal protective equipment. Avoid contact with skin and eyes. Stop the spillage. Stop the spillage. Pick up and arrange disposal without creating dust. Sweep up and shovel. If in working solution dike the spill. Prevent liquid from entering sewers, waterways or low areas. Absorb spillage in inert material. Soak up with sawdust, sand, or other absorbent material. Remove non-usable solid material and/or contaminated soil for disposal in an approved and permitted landfill.

6.2 Environmental precautions

Prevent liquid from entering sewers, waterways or low areas. Discharge to sewer requires approval of permitting authority and may require pre-treatment. Contaminated surfaces should be cleaned using water.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid breathing dust.

Provide appropriate exhaust tightly closed in a dry well-ventilated place. Hydroscopic. Keep containers closed. Noncombustible solids.
Do not store or consume food, drink, or tobacco where they may become contaminated with this material.

7.2 Conditions for safe storage, including any incompatibles

Do not store with incompatible materials. All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Triple rinse before disposal. Dispose of in a licensed facility.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

See Section 3.

8.2 Exposure controls

Use good personal hygiene when handling this product. Wash hands after use, before smoking, or using the toilet. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Personal protective equipment

Eye Protection: Safety glasses with side shields (or goggles).

Respiratory Protection: Wear OSHA approved dust respirator if TLV is to be exceeded. Respirator type: N95 Particulate Filter. A respirator should be worn if hazardous decomposition products are likely to have been released.

Skin protection: Latex, rubber, or neoprene waterproof gloves are recommended.

Body protection: Rubber or plastic apron.

Respiratory protection: Local exhaust ventilation is recommended. Ventilation must be adequate to keep hazardous ingredients below their exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance And Odor: White crystalline to gray powder with no odor
Solubility In Water: 49.7% @ 95.7°F
Boiling Point: Not applicable
Flash Point: Nonflammable
Flash Point Method: Not applicable
Auto ignition: Not applicable
LEL: Not applicable
UEL: Not applicable
Vapor Pressure: Negligible
Specific Gravity: Not applicable
Melting Point: Not available
Freezing Point: N.E.
Evaporation Rate: Not applicable
Vapor Density: Not applicable
Percent Volatile: 0
Ph: Not applicable

Molecular Weight: N.E.
V.O.C. = 0

10. STABILITY AND REACTIVITY

10.1 Reactivity
Stable

10.2 Chemical stability
Conditions To Avoid: None

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible Materials
Strong acids will liberate sulfur.

10.6 Decomposition Products
May produce oxides of sulfur and carbon

11. TOXICOLOGICAL INFORMATION

11.1 Information of toxicological effects

Component information

Sodium Carbonate 497-19-8

Acute toxicity:
LD50 Oral – rat –4,090 mg/kg
LC50 Inhalation – Rat – 2h-5,750 mg/l
Skin irritation:
LD50 Dermal – rabbit > 2000 mg/kg
Eye irritation:
Eyes- Rabbit
Result: eye irritation – 24 h
Respiratory or Skin Sensitization
LD50 Inhalation – guinea pig – 800 mg.m^3

Carcinogenicity/mutagenicity: none

12. ECOLOGICAL INFORMATION

Component information

Sodium Carbonate 497-19-8

12.1 Toxicity
LC50 /96 hours: 300 mg/l (bluegill, sunfish)
EC50/48 hours: 200-227 mg/L (Ceriodaphnia)

12.2 Persistence and degradability
This product is completely biodegradable.

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Result of PBT and vPvB assessment
Assessment not available as chemical assessment not required/not conducted

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

14. TRANSPORT INFORMATION

DOT (US)
Not regulated

15. REGULATORY INFORMATION

SARA 302 Components
None

SARA 313 Components
None

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

California Prop 65 Components
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA
All ingredients in this finished product are listed on the EPA TSCA INVENTORY.

SCAQMD Rule 443.1

Photochemically Reactive: No
Maximum Grams of VOC per Liter: 0 g/L
Vapor Pressure: 18 mm Hg@ 20 Degrees C

16. OTHER INFORMATION

Full text of H-statements referred to under sections 2 and 3.

Causes severe eye irritation H319

HMIS RATING

Health: 2
Flammability: 0
Reactivity: 0

OTHER ADDITIONAL INFORMATION: The information contained herein is based on the data available to us and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for the injuries from the use of the product described herein.