



MATERIAL SAFETY DATA SHEET
BERSPEED Film Developer

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

Product Name : BERSPEED Developer
Product Number : - 3800301 (1 liter)
- 3800305 (5 liters)
Product Use : Photographic Developer

Details of the Manufacturer :
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2 HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

INHALATION

Dust may irritate respiratory system or lungs.

INGESTION

May cause discomfort if swallowed.

SKIN CONTACT

Powder may irritate skin.

EYE CONTACT

Crystalline powder May cause temporary eye irritation. Repeated exposure may cause chronic eye irritation.

HEALTH WARNINGS

Dust may irritate respiratory system or lungs.

ROUTE OF ENTRY

Inhalation. Ingestion. Skin and/or eye contact.

MEDICAL CONSIDERATIONS

May aggravate existing: Skin disorders and allergies. Pre-existing eye problems.

3 COMPOSITION/INFORMATION ON INGREDIENTS

	Name	EC N°	CAS-No	Weight
Part A	Sodium Sulphite	231-821-4	7757-83-7	85-95 %
	Sodium Tetraborate	215-540-4	1330-43-4	5-10 %
	Boric Acid	233-139-2	10043-35-3	0-5%
Part B	Hydrochinon	204-617-8	123-31-9	95-100%
	1-Phenyl-3-pyrazolidone	202-155-1	92-43-3	0-5%
Part C	Potassium Bromide	231-830-3	7758-02-3	100 %

4 FIRST-AID MEASURES

INHALATION

Unlikely route of exposure as the product does not contain volatile substances. Move the exposed person to

fresh air at once. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

INGESTION

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Remove victim immediately from source of exposure. Rinse mouth thoroughly. Drink a few glasses of water or milk. Provide rest, warmth and fresh air. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention.

SKIN CONTACT

Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water.

Contact physician if irritation continues.

EYE CONTACT

Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Contact physician if irritation persists.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

The product is non-combustible. Use extinguishing media appropriate for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES

Avoid breathing fire vapors.

UNUSUAL FIRE & EXPLOSION HAZARDS

No unusual fire or explosion hazards noted.

SPECIFIC HAZARDS

The product is non-combustible. If heated, irritating vapors may be formed. Oxides of: Sulphur.

PROTECTIVE MEASURES IN FIRE

Use protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see section 8.

ENVIRONMENTAL PRECAUTIONS

Do not discharge into drains, water courses or onto the ground. The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.

SPILL CLEAN UP METHODS

For waste disposal, see section 13. Wear necessary protective equipment. Small quantities may be flushed to drains with plenty of water.

Prevent discharge of larger quantity to drain. Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Wash contaminated area with water.

7 HANDLING AND STORAGE

HANDLING

Provide good ventilation. Avoid spilling, skin and eye contact. Do not eat, drink or smoke when using the product. Read and follow manufacturer's recommendations.

STORAGE

Store in closed original container in a dry place. Store under well-ventilated conditions at a temperature below 25°C.

STORAGE CLASS

Chemical storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	STD	TWA (8-hrs)	STEL (15 min)	Notes
Sodium Tétraborate	WEL	1 mg/m ³		

WEL = Workplace Exposure Limit.

PROCESS CONDITIONS

Provide eyewash station and it is recommended that a safety shower is also available.

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

RESPIRATORY EQUIPMENT

No specific recommendations.

HAND PROTECTION

Use suitable protective gloves if risk of skin contact.

EYE PROTECTION

Use approved safety goggles or face shield.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of skin contact.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Powder, dust
COLOR	White
ODOR	No characteristic odor.
SOLUBILITY	Soluble in water 100%

10 STABILITY AND REACTIVITY

STABILITY

Stable under the prescribed storage conditions. No particular stability concerns.

CONDITIONS TO AVOID

Avoid contact with acids. Avoid excessive heat for prolonged periods of time.

HAZARDOUS POLYMERISATION

Will not polymerize.

MATERIALS TO AVOID

Strong acids. Avoid contact with other photographic solutions and/or cleaning compounds.

HAZARDOUS DECOMPOSITION PRODUCTS

Fire or high temperatures create: Vapors/gases/fumes of: Oxides of: Sulphur.

11 TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION

This chemical formulation has not been tested for health effects. Exposure effects listed are based on

existing health data for the individual components which comprise the mixture.

Name	Sodium Sulphite
Toxic Dose 1 - LD 50	2610 mg/kg (oral rat)
Name	Sodium Tetraborate
Toxic Dose 1 - LD 50	2660 mg/kg (oral rat)
Name	HYDROQUINONE
Toxic Dose 1 - LD 50	320 mg/kg (oral rat)
Toxic Dose 2 - LD 50	>900 mg/kg (skn-rat)
Name	1-PHENYL-3-PYRAZOLIDONE
Toxic Dose 1 - LD 50	200 mg/kg (oral rat)
Name	POTASSIUM BROMIDE
Toxic Dose 1 - LD 50	500-5000 mg/kg (oral rat)
Name	Boric Acid
Toxic Dose 1 - LD 50	>3000 mg/kg (oral rat)

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Dangerous for the environment: May cause long-term adverse effects in the aquatic environment.

Name	Sodium Sulphite
LC 50, 96 hrs, Fish mg/l	220 - 460
EC 50, 48 hrs, Daphnia, mg/l	69
Name	HYDROQUINONE
LC 50, 96 hrs, Fish mg/l	0.10-0.18 (Fathead Minnow)
EC 50, 48 hrs, Daphnia, mg/l	0.05
IC 50, 72 hrs, Algae, mg/l	1.0
Name	1-PHENYL-3-PYRAZOLIDONE
LC 50, 96 hrs, Fish mg/l	>1
Name	Boric Acid
LC 50, 96 hrs, Fish mg/l	600
EC 50, 48 hrs, Daphnia, mg/l	115-153

13 DISPOSAL CONSIDERATIONS

WASTE MANAGEMENT

The disposal process for this product when it becomes waste, depends largely upon how much (volume) waste is generated, where the waste is generated (location) and by whom (whether in a professional or amateur or other capacity). Therefore only outline guidance can be provided. The UK's Photo Imaging Council (PIC) has produced detailed guidance in a Code of Practice for the Photoprocessing Industry for the Care of the Environment (COPPICE). For up to date, general and specialist advice on the disposal of this product when it becomes waste, please visit the COPPICE web site at <http://www.pic.uk.net/coppice/index.htm>. The information is relevant to both professional and amateur users.

DISPOSAL METHODS

Unused and spent solutions may be allowed to be discharged to sanitary sewer by permit IF allowed by local regulations. Consult your local authority for advice. Waste may have to be pre-treated before discharge. Consult local authorities before discharging any waste to sewer.

Do not discharge to septic system. Waste that cannot be discharged to sewer may have to be handled by a licensed hazardous waste contractor.

WASTE CLASS

EU Waste Number: 090101

14 TRANSPORT INFORMATION

TRANSPORT NOTES This product is not classified as dangerous for transport by road, rail sea or

air, (ADR/RID, IMDG,IATA).

ROAD TRANSPORT NOTES Not classified for road transport

RAIL TRANSPORT NOTES Not classified for rail transport

SEA TRANSPORT NOTES Not classified for sea transport

AIR TRANSPORT NOTES Not classified for air transport

15 REGULATORY INFORMATION

REGULATORY STATUS (US)

TSCA: The ingredients of this product are on the TSCA Inventory.

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM -WHMIS

LABEL(S) FOR SUPPLY

Not Classified
According to
WHMIS.

CONTROLLED PRODUCT CLASSIFICATION

This Product has been classified according to the hazard criteria of the Controlled Products Regulations and the MSDS contains all required information.

16 OTHER INFORMATION

GENERAL INFORMATION

BERGGER SAS believe the information and recommendations contained herein are based on correct and factual data. However, no express or implied guarantee or warranty of any kind is made with respect to this information. Use this information only to supplement other information you have gathered and then make an independent determination about the completeness and suitability of all information to ensure the proper use and disposal of this product and the health and safety of employees and customers.

INFORMATION SOURCES

European Photographic Chemical Industry Code of Practice For Classification And Labelling Material Safety Data Sheet, Misc. manufacturers. Dangerous Properties of Industrial Chemicals, 6.edition, N.Sax, 1984.

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