

Safety Data Sheet

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Kodak alaris

1. Identification of the substance/mixture and of the company/undertaking

Product name: 1QT BTL DURAFLO RT DEVR STARTER 1050, Developer Starter

Product code: 1016690 - Developer Starter

Synonyms: PCD 5001

Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: photographic processing chemical (developer/activator). For industrial use only.

Supplier: Kodak Alaris Inc., 2400 Mount Read Boulevard, Rochester, NY 14615

IN EMERGENCY, telephone: 1-800-424-9300 or +1 703-527-3887.

For further information about this product, email EHS-Questions@Kodakalaris.com.

2. Hazards identification

Classification of the chemical in accordance with paragraph (d) of 29 CFR 1910.1200:

Hazard class	Hazard category	Route of exposure
Corrosive to metals	Category 1	--
Skin corrosion	Category 1	--
Serious eye damage	Category 1	--
Respiratory sensitisation	Category 1	--

GHS-Labeling

Contains:

Sodium bromide (7647-15-6), Acetic acid (64-19-7)

Symbol(s):



Signal word: Danger

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Hazard statements: May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements:

Prevention: Keep only in original container. Wear protective gloves. In case of inadequate ventilation wear respiratory protection. Do not breathe dust or mist. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash thoroughly after handling.

Response: Immediately call a POISON CENTER or doctor/ physician. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Storage: Store in corrosive resistant container with resistant inliner.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulation.

HMIS III Hazard Ratings: Health - 3, Flammability - 0, Physical Hazard - 0

NFPA Hazard Ratings: Health - 3, Flammability - 0, Instability - 0

NOTE: HMIS III and NFPA 704 (2007) hazard indexes involve data review and interpretation that may vary among companies. They are intended only for rapid, general identification of the magnitude of the potential hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight percent	Components - (CAS-No.)
25 - 30	Sodium bromide (7647-15-6)
15 - 20	Acetic acid (64-19-7)

4. First aid measures

Inhalation: If inhaled, remove to fresh air. Get medical attention.

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

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Skin: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. Immediately call a POISON CENTER or doctor/ physician.

Ingestion: If swallowed, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately.

Most important symptoms and effects, both acute and delayed: No information available.

Indication of any immediate medical attention and special treatment needed:

Treatment: No information available.

5. Firefighting measures

Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special hazards arising from the substance or mixture

Hazardous Combustion Products: None (noncombustible), (see also Hazardous Decomposition Products sections.)

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. Fire or excessive heat may produce hazardous decomposition products.

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Refer to protective measures listed in sections 7 and 8.

Methods and materials for containment and cleaning up: Remove all sources of ignition. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.

Environmental precautions: No information available.

7. Handling and storage

Precautions for safe handling

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Personal precautions: Do not breathe mist or vapour at concentrations greater than the exposure limits. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Use only with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: No special technical protective measures required.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed. Keep away from incompatible substances (see Incompatibility section.)

8. Exposure controls/personal protection

Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
Acetic acid	ACGIH	Time weighted average	10 ppm
Acetic acid		Short term exposure limit	15 ppm
	OSHA	Time weighted average	10 ppm 25 mg/m3

Appropriate engineering controls: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.

Individual protection measures, such as personal protective equipment

Eye protection: If a full-face respirator is not worn, wear vapour-tight chemical goggle and a face shield.

Hand protection: Wear impervious gloves and protective clothing appropriate for the risk of exposure.

Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: full-face organic vapour cartridge. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

9. Physical and chemical properties

Physical form: liquid

Colour: clear colourless

Odour: vinegar

Specific gravity: 1.27

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Vapour pressure: 24 mbar (18.0 mm Hg)

Vapour density: 0.6

Boiling point/boiling range: 100.0 °C (212.0 °F)

Water solubility: complete

pH: 2.0

Flash point: does not flash

Evaporation rate: No data available

Flammability (Solid; gas): No data available

Upper explosion limit: No data available

Lower explosion limit: No data available

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

10. Stability and reactivity

Reactivity: No data available

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerisation does not occur.

Conditions to avoid: No data available

Incompatible materials: Bases.

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Hazardous decomposition products: Hydrogen bromide, Carbon oxides

11. Toxicological information

Effects of Exposure

General advice:

Contains: Sodium bromide. May damage fertility or the unborn child. Ingestion of bromide salts can cause nausea, vomiting, headache, irritability, delirium, memory loss, decreased appetite, joint pain, hallucinations, stupor, coma, and acne like rash on face, legs, and trunk.

Contains: Acetic acid. Acute overexposure to extremely high airborne concentrations of respiratory irritants has been associated with development of an asthma-like reactive airways syndrome (RADS) in susceptible individuals. Extremely high airborne concentrations are not generated during normal conditions of use but may occur following a spill. The potential to generate extremely high airborne concentrations in a spill situation depends upon physical factors such as the concentration of the solution, the volume of the spill, the surface area of the spill, the size of the room where the spill occurred, and the ventilation rate in the room.

Inhalation: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Airborne dust/mist/vapor irritating.

Eyes: Causes serious eye damage. Airborne dust/mist/vapor irritating.

Skin: Causes severe skin burns and eye damage.

Ingestion: Harmful if swallowed. May cause burns of the gastrointestinal tract if swallowed.

Data for Acetic acid (CAS 64-19-7):

Acute Toxicity Data:

Oral LD50 (Rat): 3,320 mg/kg

- Inhalation LC50 (Rat): 11.4 mg/l / 4 hr
- Dermal LD50 (Rabbit): 1,060 mg/kg
- Skin irritation: severe
- Eye irritation (washed eyes): severe
- Eye irritation (unwashed eyes): severe

Data for Sodium bromide (CAS 7647-15-6):

Acute Toxicity Data:

Oral LD50 (Rat): 3,400 mg/kg

- Dermal LD50 (Rabbit): > 2,000 mg/kg

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- Skin irritation: none
- Skin Sensitization: none
- Eye irritation: slight

Carcinogenicity

American Conference of Governmental Industrial Hygienists (ACGIH):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
International Agency for Research on Cancer (IARC):	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
U.S. National Toxicology Program (NTP):	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
U.S. Occupational Safety and Health Administration (OSHA):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
California Prop. 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

12. Ecological information

The following properties are ESTIMATED from the components of the preparations.

Potential Toxicity:

Toxicity to fish (LC50):	> 100 mg/l
Toxicity to daphnia (EC50):	> 100 mg/l
Toxicity to algae (IC50):	> 100 mg/l
Toxicity to other organisms (EC50):	> 100 mg/l

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Persistence and degradability: Readily biodegradable

Chemical Oxygen Demand (COD): ca. 218 g/l

Biochemical Oxygen Demand (BOD): ca. 156 g/l

Bioaccumulative potential

No data available

Mobility in soil

No information available.

13. Disposal considerations

Discharge, treatment, or disposal may be subject to federal, state, commonwealth, provincial, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

The information below is provided to assist in documentation. It represents the dangerous goods classification before any regulatory exceptions are taken (e.g. "limited quantity") and therefore may not represent the final classification. The final classification as it pertains to the product packaging configuration (including labeling, marking, and exceptions) may be obtained via the Dangerous Goods Worksheet which can be found at www.kodak.com/go/ship.

IATA: UN number: UN2790
Proper shipping name: ACETIC ACID SOLUTION
Class: 8
Packaging group: III

IMDG: UN number: UN2790
Proper shipping name: ACETIC ACID SOLUTION
Class: 8
Packaging group: III

US DOT: UN number: UN2790
Proper shipping name: ACETIC ACID SOLUTION
Class: 8
Packaging group: III

For more transportation information, go to: www.kodak.com/go/ship.

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15. Regulatory information

Notification status

Regulatory List	Notification status
TSCA	All listed
DSL	All listed
NDSL	None listed
EINECS	All listed
ELINCS	None listed
NLP	None listed
AICS	All listed
IECS	All listed
ENCS	All listed
ECI	All listed
NZIoC	All listed
PICCS	All listed

"Not all listed" indicates one or more component is either not on the public Inventory or is subject to exemption requirements. If additional information is needed contact Kodak.

Other regulations

U.S. - CERCLA/SARA (40 CFR § 302.4 Designation of hazardous substances):	Acetic acid
U.S. - CERCLA/SARA - Section 302 (40 CFR § 355 Appendices A and B - The List of Extremely Hazardous Substances and Their Threshold Planning Quantities):	No components of this product are subject to the SARA Section 302 (40 CFR 355) reporting requirements.
U.S. - CERCLA/SARA - Section 313 (40 CFR § 372.65 Toxic Chemical Release Reporting):	No components of this product are subject to the SARA Section 313 (40 CFR 372.65) reporting requirements.
U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances:	Acetic acid

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U.S. - California - 8 CCR Section 5200-5220 - Specifically Regulated Carcinogens:	No components found on the California Specifically Regulated Carcinogens List.
U.S. - California - 8 CCR Section 5203 Carcinogens:	No components found on the California Section 5203 Carcinogens List.
U.S. - California - 8 CCR Section 5209 Carcinogens:	No components found on the California Section 5209 Carcinogens List.
U.S. - Massachusetts - General Law Chapter 111F (MGL c 111F) - Hazardous Substances Disclosure by Employers (a.k.a. Right to Know Law):	Acetic acid
U.S. - Minnesota Employee Right-to-Know (5206.0400, Subpart 5. List of Hazardous Substances):	Acetic acid
U.S. - New Jersey - Worker and Community Right to Know Act (N.J.S.A. 34:5A-1):	Acetic acid
U.S. - Pennsylvania - Part XIII. Worker and Community Right-to-Know Act (Chapter 323 Hazardous Substance List, Appendix A):	Water , Sodium bromide , Acetic acid

16. Other information

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

US/Canadian Label Statements:

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Contains:

Sodium bromide (7647-15-6), Acetic acid (64-19-7)

Symbol(s):



Signal word: Danger

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Precautionary statements:

Prevention: Keep only in original container. Wear protective gloves. In case of inadequate ventilation wear respiratory protection. Do not breathe dust or mist. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash thoroughly after handling.

Response: Immediately call a POISON CENTER or doctor/ physician. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Storage: Store in corrosive resistant container with resistant inliner.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulation.

FIRST AID: If inhaled, remove to fresh air. Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. Immediately call a POISON CENTER or doctor/ physician. If swallowed, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately. Keep out of reach of children. Do not handle or use until safety precautions in Material Safety Data Sheet (MSDS) have been read and understood. Since emptied containers retain product residue, follow label warnings even after container is emptied. **IN CASE OF FIRE:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. **IN CASE OF SPILL:** Remove all sources of ignition. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.

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R-2, S-3, F-0, C-0