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SAFETY DATA SHEET

Classified in accordance with Health Canada Hazardous Products Regulations (SOR/2015-17)

1. Identification

Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
261187	BD BBL™ DMACA Indole Reagent Dropper	No data available

Recommended use of the chemical and restrictions on use

Recommended use: Laboratory Chemicals
Recommended restrictions: None known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: BD, Integrated Diagnostic Solutions
Address: 7 Loveton Circle
Sparks, MD 21152
USA

Telephone: 1 844 823 5433
Fax: not available
Contact Person: Tech Services

Emergency telephone number: CHEMTREC 1 800 424 9300

2. Hazard identification

Hazard Classification

Health Hazards

Skin Corrosion/Irritation	Category 1
Serious Eye Damage/Eye Irritation	Category 1
Specific Target Organ Toxicity - Single Exposure	Category 3

Label Elements

Hazard Symbol:

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Signal Word:	Danger
Hazard Statement:	H314: Causes severe skin burns and eye damage. H335: May cause respiratory irritation.
Precautionary Statements	
Prevention:	P260: Do not breathe dust/fume/gas/mist/vapors/spray. P280: Wear protective gloves/protective clothing/eye protection/face protection. P264: Wash thoroughly after handling. P271: Use only outdoors or in a well-ventilated area.
Response:	P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P310: Immediately call a POISON CENTER or doctor/ physician. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P363: Wash contaminated clothing before reuse. P337+P313: If eye irritation persists: Get medical advice/attention.
Storage:	P405: Store locked up. P403: Store in a well-ventilated place. P233: Keep container tightly closed.
Disposal:	P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification:	None.

3. Composition/information on ingredients

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Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Hydrochloric acid	No data available.	7647-01-0	5 - 10%
p-dimethylaminocinnamaldehyde	No data available.	6203-18-5	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

General information: Causes severe skin burns and eye damage. Get immediate medical advice/attention. May cause respiratory irritation.

Inhalation: Move to fresh air. Get medical attention if any discomfort continues. May cause respiratory irritation.

Skin Contact: Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Get medical attention promptly if symptoms occur after washing.

Eye contact: Important! Immediately rinse with water for 60 minutes. Get medical attention immediately. Continue to rinse.

Ingestion: Call a physician or poison control center immediately. Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

Personal Protection for First-aid Responders: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Most important symptoms and effects, both acute and delayed

Symptoms: Symptoms may be delayed.

Hazards: Causes severe skin burns and eye damage. May cause respiratory irritation.

Indication of immediate medical attention and special treatment needed

Treatment: IF exposed or concerned: Get medical advice/attention.

5. Fire-fighting measures

General Fire Hazards: Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Use water to keep fire exposed containers cool and disperse vapors.

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Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Use water fog, alcohol-resistant foam, dry chemical or carbon dioxide (CO2) to extinguish flames.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.
Special hazards arising from the substance or mixture:	Fire or excessive heat may produce hazardous decomposition products.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	No unusual fire or explosion hazards noted.
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Ventilate closed spaces before entering them. Avoid breathing mists or vapors. Keep unauthorized personnel away.
Methods and material for containment and cleaning up:	Stop leak if possible without any risk. Prevent runoff from entering drains, sewers, or streams. Dike far ahead of larger spills for later disposal. Absorb in vermiculite, dry sand or earth and place into containers. See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.
Environmental Precautions:	Do not contaminate water sources or sewer.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	Adequate ventilation should be provided so that exposure limits are not exceeded. Eye wash facilities and emergency shower must be available when handling this product.

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Safe handling advice: Avoid contact with eyes and prolonged or repeated contact with skin. Avoid inhalation of vapors and spray mists. Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Provide good ventilation.

Contact avoidance measures: No data available.

Storage

Safe storage conditions: Store in original tightly closed container. Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames, and high temperatures.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
Hydrochloric acid	CEILING	2 ppm	3 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
Hydrochloric acid	CEILING	2 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended)
Hydrochloric acid		2 ppm		Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended
Hydrochloric acid	CEV	2 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended
Hydrochloric acid	Ceiling	2 ppm		Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended
Hydrochloric acid	Ceiling	2 ppm		US. ACGIH Threshold Limit Values, as amended
Hydrochloric acid	Ceil_Time	5 ppm	7 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Hydrochloric acid	IDLH	50 ppm		US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values
No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls Adequate ventilation should be provided so that exposure limits are not exceeded. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

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Eye/face protection:	Wear safety glasses with side shields (or goggles) and a face shield.
Skin Protection	
Hand Protection:	Material: Suitable gloves can be recommended by the glove supplier.
Other:	Chemical resistant clothing
Respiratory Protection:	In case of inadequate ventilation use suitable respirator.
Hygiene measures:	Observe good industrial hygiene practices. Wash at the end of each work shift and before eating, smoking and using the toilet.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	According to product specification.
Odor:	Characteristic
Odor Threshold:	No data available.
Freezing point:	No data available.
Boiling Point:	No data available.
Flammability:	No data available.
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Flash Point:	Not applicable
Self Ignition Temperature:	No data available.
Decomposition Temperature:	No data available.
pH:	1.2 - 1.8
Viscosity	
Dynamic viscosity:	Not determined.
Kinematic viscosity:	Not determined.
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	Completely Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	No data available.
Relative density:	No data available.
Density:	No data available.
Bulk density:	No data available.
Relative vapor density:	No data available.

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Particle characteristics

Particle Size:	No data available.
Particle Size Distribution:	No data available.
Specific surface area:	No data available.
Surface charge/Zeta potential:	No data available.
Shape:	No data available.
Crystallinity:	No data available.
Surface treatment:	No data available.

10. Stability and reactivity

Reactivity:	Material is stable under normal conditions.
Chemical Stability:	No data available.
Possibility of hazardous reactions:	Stable; however, may decompose if heated.
Conditions to avoid:	Avoid exposure to high temperatures or direct sunlight. Do not freeze.
Incompatible Materials:	Avoid contact with oxidizers or reducing agents.
Hazardous Decomposition Products:	By heating and fire, corrosive vapors/gases may be formed.

11. Toxicological information

Information on toxicological effects

Information on likely routes of exposure

Inhalation:	May cause respiratory irritation.
Skin Contact:	Causes severe skin burns.
Eye contact:	Risk of serious damage to eyes.
Ingestion:	No data available.

Acute toxicity (list all possible routes of exposure)

Oral

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

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Dermal

Product:	ATEmix: 14,490 mg/kg
Components:	
Hydrochloric acid	LD 50 (Mouse): 1,449 mg/kg
p-dimethylaminocinnamaldehyde	No data available.

Inhalation

Product:	No data available.
Components:	
Hydrochloric acid	LC 50 (Rat, 4 h): 1405 ppm LC 50 (Rat, 1 h): 2810 ppm LOAEL (Guinea pig, 30 min): <= 320 ppm 2 = reliable with restrictions; Experimental result, Supporting study, Gas LC 50 (Mouse, 5 min): 2644 ppm 2 = reliable with restrictions; Experimental result, Supporting study, Inhalation LC 50 (Rat, 5 min): 40989 ppm 2 = reliable with restrictions; Experimental result, Key study, Inhalation LC 50 (Rat, 5 min): 4701 ppm 2 = reliable with restrictions; Experimental result, Key study, Inhalation LC 50 (Mouse, 5 min): 13745 ppm 2 = reliable with restrictions; Experimental result, Supporting study, Inhalation LC 50 (Mouse, 5 min): 3.2 mg/l 2 = reliable with restrictions; Experimental result, Supporting study, Inhalation LC 50 (Rat, 5 min): 8.3 mg/l 2 = reliable with restrictions; Experimental result, Key study, Inhalation LD (Guinea pig, 30 min): >= 1040 ppm 2 = reliable with restrictions; Experimental result, Supporting study, Gas LC 50 (Mouse, 5 min): 16.5 mg/l 2 = reliable with restrictions; Experimental result, Supporting study, Inhalation LC 50 (Rat, 5 min): 45.6 mg/l 2 = reliable with restrictions; Experimental result, Key study, Inhalation
p-dimethylaminocinnamaldehyde	No data available.

Repeated dose toxicity

Product:	No data available.
Components:	
Hydrochloric acid	NOAEL (Mouse(Female, Male), Inhalation, 4 - 91 d): 20 ppm(m) Experimental result, Key study Inhalation NOAEL (Rat(Female, Male), Inhalation, 4 - 91 d): 10 ppm(m) Experimental result, Key study Inhalation NOAEL (Rat(Female, Male), Inhalation, 4 - 91 d): 20 ppm(m) Experimental result, Key study Inhalation LOAEL (Mouse(Female, Male), Inhalation, 4 - 91 d): 50 ppm(m) Experimental result, Key study Inhalation NOAEL (Guinea pig; Monkey; Rabbit(female), Inhalation, 2 - 20 d): 0.05 mg/l Experimental result, Supporting study Inhalation
p-dimethylaminocinnamaldehyde	No data available.

Skin Corrosion/Irritation

Product:	Causes severe burns.
Components:	

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Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Serious Eye Damage/Eye Irritation

Product:	Risk of serious damage to eyes.
Components:	
Hydrochloric acid	Category 1 in vivo Rabbit, 1 hrs: EU Category 1 in vivo Rabbit, 1 d: EU Category 1 in vivo Rabbit, 1 - 21 d: EU Category 1 in vivo Rabbit, 3 - 7 d: EU Category 1 in vivo Rabbit, 1 - 24 hrs: EU Category 1 in vivo Rabbit, 1 - 7 d: EU Category 1 in vivo Rabbit, 1 - 2 d: EU
p-dimethylaminocinnamaldehyde	No data available.

Respiratory or Skin Sensitization

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Carcinogenicity

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogens present or none present in regulated quantities

ACGIH: US.ACGIH Threshold Limit Values:
No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogens present or none present in regulated quantities

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended
No carcinogens present or none present in regulated quantities

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended
No carcinogens present or none present in regulated quantities

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended

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No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

In vitro

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

In vivo

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Reproductive toxicity

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Specific Target Organ Toxicity - Single Exposure

Product:	Category 3 with respiratory tract irritation. May cause respiratory irritation.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Aspiration Hazard

Product:	No data available.
Components:	
Hydrochloric acid	No data available.

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p-dimethylaminocinnamaldehyde	No data available.

Information on health hazards

Other hazards

Product: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	Not expected to be harmful to aquatic organisms.
Components:	
Hydrochloric acid	LC 50 (Western mosquitofish (Gambusia affinis), 96 h): 282 mg/l Mortality LC 50 (Western mosquitofish (Gambusia affinis), 48 h): 282 mg/l Mortality LC 50 (Western mosquitofish (Gambusia affinis), 24 h): 282 mg/l Mortality
p-dimethylaminocinnamaldehyde	LC 50 (Pimephales promelas, 96 h): 5.9 mg/l

Aquatic Invertebrates

Product:	No data available.
Components:	
Hydrochloric acid	LC 50 (Common shrimp, sand shrimp (Crangon crangon), 48 h): 260 mg/l Mortality LC 50 (Green or European shore crab (Carcinus maenas), 48 h): 240 mg/l Mortality
p-dimethylaminocinnamaldehyde	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
Hydrochloric acid	No data available.

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p-dimethylaminocinnamaldehyde	No data available.

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Persistence and Degradability

Biodegradation

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

BOD/COD Ratio

Product:	No data available.
Components:	
Hydrochloric acid	No data available.

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p-dimethylaminocinnamaldehyde	No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product:	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Mobility in soil:

Product	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Results of PBT and vPvB assessment:

Product	No data available.
Components:	
Hydrochloric acid	No data available.
p-dimethylaminocinnamaldehyde	No data available.

Other adverse effects:

Other hazards

Product:	No data available.

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13. Disposal considerations

General information:	Dispose of waste and residues in accordance with local authority requirements.
Disposal methods:	This material and/or its container must be disposed of as hazardous waste.
Contaminated Packaging:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

14. Transport information

DOT

Special precautions for user: This package conforms to 49 CFR 173.4

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IMDG

UN number or ID number:	UN 1789
UN Proper Shipping Name:	HYDROCHLORIC ACID
Transport Hazard Class(es)	
Class:	8
Subsidiary risk:	8
EmS No.:	F-A, S-B
Packing Group:	II
Environmental Hazards	
Marine Pollutant:	Not regulated.
Special precautions for user:	EQ

TDG

UN number or ID number	UN1789
Proper Shipping Name	HYDROCHLORIC ACID
Class	8
Packing Group	II
Label(s)	8
Subsidiary risk label	
Special precautions for user:	EQ

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IATA

UN number or ID number:	UN 1789
Proper Shipping Name:	Hydrochloric acid
Transport Hazard Class(es):	
Class:	8
Subsidiary risk:	8
Packing Group:	II
Environmental Hazards	
Marine pollutant:	Not regulated.
Special precautions for user:	EQ

15. Regulatory information

Canada Federal Regulations
List of Toxic Substances (CEPA, Schedule 1)
Not Regulated

Export Control List (CEPA 1999, Schedule 3)
Not Regulated

National Pollutant Release Inventory (NPRI)
Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements
NPRI PT5 Not Regulated

Canada. National Pollutant Release Inventory (NPRI) (Schedule 1, Parts 1-4)
NPRI Hydrochloric acid

Greenhouse Gases
Not Regulated

Canada. Substances Subject to Significant New Activity (SNAc) Reporting Requirements
Not Regulated

Controlled Drugs and Substances Act
CA CDSI Not Regulated

CA CDSII Not Regulated

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CA CDSIII	Not Regulated
CA CDSIV	Not Regulated
CA CDSV	Not Regulated
CA CDSVII	Not Regulated
CA CDSVIII	Not Regulated

Precursor Control Regulations

Chemical Identity
Hydrochloric acid

16.Other information, including date of preparation or last revision

Issue Date:	03/04/2022
Version #:	2.2
Further Information:	No data available.
Disclaimer:	Disclaimer: The information contained herein has been obtained from various sources and is believed to be correct as of the date issued. However, neither BD nor any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability for a particular use of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. BD provides SDS in electronic form so the information may be more easily accessed. Due to the possibility of errors during transmission, BD makes no representations as to the completeness or accuracy of the information.