

Becton, Dickinson and  
Company  
BD, Franklin Lakes, NJ  
07417 USA  
www.bd.com

# SAFETY DATA SHEET

## 1. Identification of the substance or mixture and of the supplier

### Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
212537	BD BBL™ Acridine Orange Stain, 4 x 250 mL	No data available

### Recommended use of the chemical and restrictions on use

**Recommended use:** Scientific and industrial laboratory use. For In Vitro Diagnostic Use.

**Recommended restrictions:** None known.

### Supplier's details

#### Supplier

Company Name: Becton Dickinson Ltd.  
Address: 14B George Bourke Drive  
Mt Wellington, Auckland, 1060  
Telephone: 0800 572 468  
Fax:  
Contact Person: Customer Service  
E-mail: bd\_anz@bd.com

**Emergency telephone number:** ChemTrec New Zealand: +(64)-98010034

## 2. Hazard(s) identification

### GHS classification

#### Health Hazards

Skin Corrosion/Irritation Category 2  
Serious Eye Damage/Eye Irritation Category 1

### Label Elements

#### Pictograms:



**Signal Word:** Danger

**Hazard Statement:** Causes skin irritation.  
Causes serious eye damage.



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### Precautionary Statements

**Prevention:** Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Specific treatment (see supplemental first aid instructions on this label). 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/doctor.

**Other hazards which do not result in GHS classification:** None.

## 3. Composition/information on ingredients

### Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) <sup>*</sup>
Acetic acid, sodium salt (1:1)	No data available.	127-09-3	3 - 7%
Hydrochloric acid	No data available.	7647-01-0	3 - 7%

<sup>\*</sup> 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 serious eye damage. Causes skin irritation.

**Inhalation:** Get medical attention if any discomfort continues.

**Skin Contact:** Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water.

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

**Ingestion:** If swallowed, rinse mouth with water (only if the person is conscious). DO NOT induce vomiting. Get medical attention immediately.



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**Personal Protection for First-aid Responders:**

No data available.

**Most important symptoms and effects, both acute and delayed Symptoms:**

No data available.

**Hazards:**

Causes serious eye damage. Causes skin irritation.

**Indication of immediate medical attention and special treatment needed**

**Treatment:**

Get immediate 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.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:**

Water spray, fog, CO2, dry chemical, or alcohol resistant foam.

**Unsuitable extinguishing media:**

Avoid water in straight hose stream; will scatter and spread fire.

**Special hazards arising from the substance or mixture:**

Fire or excessive heat may produce hazardous decomposition products.

**Special protective equipment and precautions for fire-fighters**

**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:**

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wash thoroughly after dealing with a spillage. Contact local authorities in case of spillage to drain/aquatic environment.

**Accidental release measures: Methods and material for containment and cleaning up:**

No data available.  
Absorb spillage with suitable absorbent material. Prevent runoff from entering drains, sewers, or streams. See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.

**Environmental Precautions:**

Avoid release to the environment.

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**7. Handling and storage**

**Handling**

**Technical measures (e.g. Local and general ventilation):** Adequate ventilation should be provided whenever the material is heated or mists are generated.

**Safe handling advice:** Wash promptly with soap and water if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. Read and follow manufacturer's recommendations. Use personal protective equipment as required.

**Contact avoidance measures:** No data available.

**Storage**

**Safe storage conditions:** Store in tightly closed original container in a dry, cool and well-ventilated place.

**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	5 ppm 7.5 mg/m3	New Zealand. WES. (Workplace Exposure Standards), as amended (09 2010)

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 whenever the material is heated or mists are generated.

**Individual protection measures, such as personal protective equipment**

**General information:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**Eye/face protection:** Chemical goggles and face shield are recommended.

**Skin Protection**

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<b>Hand Protection:</b>	Chemical resistant gloves
<b>Other:</b>	Wear a lab coat or similar protective clothing.
<b>Respiratory Protection:</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
<b>Hygiene measures:</b>	Do not get in eyes. Wash hands after contact. Observe good industrial hygiene practices.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

#### Appearance

<b>Physical state:</b>	Liquid
<b>Form:</b>	Liquid
<b>Color:</b>	According to product specification.
<b>Odor:</b>	Characteristic
<b>Odor Threshold:</b>	No data available.
<b>Freezing point:</b>	No data available.
<b>Boiling Point:</b>	No data available.
<b>Flammability:</b>	No data available.

#### Upper/lower limit on flammability or explosive limits

<b>Explosive limit - upper:</b>	No data available.
<b>Explosive limit - lower:</b>	No data available.
<b>Flash Point:</b>	Not applicable
<b>Self Ignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	No data available.
<b>pH:</b>	No data available.

#### Viscosity

<b>Dynamic viscosity:</b>	Not determined.
<b>Kinematic viscosity:</b>	Not determined.
<b>Flow Time:</b>	No data available.

#### Solubility(ies)

<b>Solubility in Water:</b>	Completely Soluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Relative density:</b>	No data available.
<b>Density:</b>	No data available.
<b>Bulk density:</b>	No data available.
<b>Vapor density (air=1):</b>	No data available.

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**Particle characteristics**

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

**Other information**

<b>Metal Corrosion:</b>	Non-corrosive per US Department of Transportation testing protocol.
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**10. Stability and reactivity**

<b>Reactivity:</b>	Material is stable under normal conditions.
<b>Chemical Stability:</b>	No data available.
<b>Possibility of hazardous reactions:</b>	None under normal conditions.
<b>Conditions to avoid:</b>	Avoid exposure to high temperatures or direct sunlight.
<b>Incompatible Materials:</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	By heating and fire, harmful vapors/gases may be formed.

**11. Toxicological information**

**Information on toxicological effects**

<b>Inhalation:</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin Contact:</b>	Skin irritation.
<b>Eye contact:</b>	May cause chemical eye burns.
<b>Ingestion:</b>	Ingestion may cause severe irritation of the mouth, the esophagus and the gastrointestinal tract.

**Information on likely routes of exposure**



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**Acute toxicity (list all possible routes of exposure)**

**Oral**

**Product:** ATEmix: 64,285.71 mg/kg  
ATEmix: 83,333.33 mg/kg

**Components:**  
Acetic acid, sodium salt (1:1) LD 50 (Rat): 3,500 mg/kg  
Hydrochloric acid No data available.

**Dermal**

**Product:** ATEmix: 40,250 mg/kg  
Not classified for acute toxicity based on available data.

**Components:**  
Acetic acid, sodium salt (1:1) No data available.  
Hydrochloric acid No data available.

**Inhalation**

**Product:** Not classified for acute toxicity based on available data.

**Components:**  
Acetic acid, sodium salt (1:1) No data available.  
Hydrochloric acid LC 50 (Rat, 4 h): 1405 ppm LC 50 (Rat, 1 h): 2810 ppm

**Repeated dose toxicity**

**Product:** No data available.

**Components:**  
Acetic acid, sodium salt (1:1) No data available.  
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

**Skin Corrosion/Irritation**

**Product:** Causes skin irritation.

**Components:**  
Acetic acid, sodium salt (1:1) No data available.  
Hydrochloric acid No data available.

**Serious Eye Damage/Eye Irritation**

**Product:** Causes serious eye damage.

**Components:**

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Acetic acid, sodium salt (1:1)	No data available.
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

#### **Respiratory or Skin Sensitization**

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1)	Skin sensitization:, in vivo: Non sensitising Skin sensitization:, in vivo (Human): Non sensitising Skin sensitization:, in vivo (Human): Non sensitising Skin sensitization:, in vivo: Non sensitising
Hydrochloric acid	No data available.

#### **Carcinogenicity**

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1)	No data available.
Hydrochloric acid	No data available.

#### **IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogens present or none present in regulated quantities

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

#### **Germ Cell Mutagenicity**

##### **In vitro**

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1)	No data available.
Hydrochloric acid	No data available.

##### **In vivo**

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1)	No data available.
Hydrochloric acid	No data available.

#### **Reproductive toxicity**

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1)	No data available.
Hydrochloric acid	No data available.



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### Specific Target Organ Toxicity - Single Exposure

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1) No data available.

Hydrochloric acid No data available.

### Specific Target Organ Toxicity - Repeated Exposure

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1) No data available.

Hydrochloric acid No data available.

### Aspiration Hazard

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1) No data available.

Hydrochloric acid 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:** No negative effects on the aquatic environment are known.

**Components:**

Acetic acid, sodium salt (1:1) LC 50 (96 h): > 414.87 mg/l Read-across based on grouping of substances (category approach), Supporting study  
LC 50 (Danio rerio, 96 h): > 100 mg/l Experimental result, Key study  
LC 50 (Danio rerio, 96 h): > 992.7 mg/l Experimental result, Supporting study

LC 50 (Bluegill (*Lepomis macrochirus*), 24 h): 5,000 mg/l Mortality  
LC 50 (Fathead minnow (*Pimephales promelas*), 120 h): 12,430 - 14,310 mg/l Mortality

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

#### Aquatic Invertebrates

**Product:** No negative effects on the aquatic environment are known.



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**Components:**

Acetic acid, sodium salt (1:1)	LC 50 (Water flea (Daphnia magna), 24 h): 7,170 mg/l Mortality
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

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1)	No data available.
Hydrochloric acid	No data available.

**Toxicity to microorganisms**

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1)	No data available.
Hydrochloric acid	No data available.

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No negative effects on the aquatic environment are known.

**Components:**

Acetic acid, sodium salt (1:1)	No data available.
Hydrochloric acid	No data available.

**Aquatic Invertebrates**

**Product:** No negative effects on the aquatic environment are known.

**Components:**

Acetic acid, sodium salt (1:1)	No data available.
Hydrochloric acid	No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1)	No data available.
Hydrochloric acid	No data available.

**Toxicity to microorganisms**

**Product:** No data available.

**Components:**

Acetic acid, sodium salt (1:1)	No data available.
Hydrochloric acid	No data available.

**Persistence and Degradability**



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**Biodegradation**

**Product:** No data available.  
**Components:**  
Acetic acid, sodium salt (1:1) 99 % Experimental result, Key study Detected in water.  
86 % Experimental result, Key study Detected in water.  
93.6 % Experimental result, Supporting study Detected in water.  
91.9 % Experimental result, Supporting study Detected in water.  
93 % Experimental result, Key study Detected in water.  
Hydrochloric acid No data available.

**BOD/COD Ratio**

**Product:** No data available.  
**Components:**  
Acetic acid, sodium salt (1:1) No data available.  
Hydrochloric acid No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.  
**Components:**  
Acetic acid, sodium salt (1:1) No data available.  
Hydrochloric acid No data available.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.  
**Components:**  
Acetic acid, sodium salt (1:1) No data available.  
Hydrochloric acid No data available.

**Mobility in soil:**

**Product** No data available.  
**Components:**  
Acetic acid, sodium salt (1:1) No data available.  
Hydrochloric acid No data available.

**Results of PBT and vPvB assessment:**

**Product** No data available.  
**Components:**  
Acetic acid, sodium salt (1:1) No data available.  
Hydrochloric acid No data available.

**Other adverse effects:**

**Other hazards**

**Product:** No data available.



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### 13. Disposal considerations

<b>General information:</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Disposal methods:</b>	Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
<b>Contaminated Packaging:</b>	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

#### International regulations

##### IATA

Not regulated.

##### IMDG

Not regulated.

#### Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

### 15. Regulatory information

**Classified according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) regulation 2001**

**Classified according to NZS 5433:1999, UN, IMDG, and IATA.**

#### Ozone Depleting Substances

Not Regulated

Not Regulated

#### New Zealand. CWC. Chemical Weapons (Prohibition) Act 1996 (Schedules of Chemicals 1-3)

Not Regulated

Not Regulated

#### International regulations

##### Montreal protocol

Not applicable



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**Stockholm convention**  
Not applicable

**Rotterdam convention**  
Not applicable

**Kyoto protocol**  
Not applicable

## 16. Other Information

**Issue Date:** 04.07.2022

**Revision Date:** No data available.No data available.

**Version #:** 3.1

**Further Information:** No data available.

**References:** No data available.

**Disclaimer**

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