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

SAFETY DATA SHEET

1. Identification

Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
340345	BD® FACSClean	No data available

Other means of identification
SDS number: 088100018880

Recommended use and restriction on use

Recommended use: Scientific and Industrial laboratory use.
Restrictions on use: None known.

Manufacturer/Importer/Supplier/Distributor Information

Manufacturer

Company Name:	Becton, Dickinson and Company - BD Biosciences
Address:	2350 Qume Drive 95131 San Jose, CA USA
Telephone:	1 877 232 8995 or 1 800 424 9300
Fax:	
Contact Person:	Technical Services
E-mail:	ResearchApplications@bd.com or ClinicalApplications@bd.com

Emergency telephone number: CHEMTREC 1 800 424 9300

2. Hazard(s) identification

Hazard Classification

Health Hazards

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

Environmental Hazards

Acute hazards to the aquatic environment	Category 2
Chronic hazards to the aquatic environment	Category 3

Label Elements

Hazard Symbol:

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

Signal Word: Warning

Hazard Statement:
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H401: Toxic to aquatic life.
H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention:
P264: Wash thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P273: Avoid release to the environment.

Response:
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.
P302+P352: IF ON SKIN: Wash with plenty of water/…
P332+P313: If skin irritation occurs: Get medical advice/attention.
P321: Specific treatment (see on this label).
P362: Take off contaminated clothing.

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

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Hypochlorous acid, sodium salt (1:1)	No data available.	7681-52-9	1%
Sodium hydroxide (Na(OH))	No data available.	1310-73-2	0.8%

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

4. First-aid measures

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

General information:	Causes serious eye irritation. Causes skin irritation.
Ingestion:	DO NOT induce vomiting. Get medical attention immediately.
Inhalation:	Provide fresh air, warmth and rest, preferably in comfortable upright sitting position.
Skin Contact:	Promptly flush contaminated skin with soap or mild detergent and water. Promptly remove clothing if penetrated and flush the skin with water.
Eye contact:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Most important symptoms/effects, acute and delayed

Symptoms:	No data available.
Hazards:	Causes serious eye irritation. Causes skin irritation.

Indication of immediate medical attention and special treatment needed

Treatment:	Get medical attention if symptoms occur.

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:	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Avoid water in straight hose stream; will scatter and spread fire.
Specific hazards arising from the chemical:	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.

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

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Contact local authorities in case of spillage to drain/aquatic environment. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area.

Methods and material for containment and cleaning up: 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.

7. Handling and storage

Precautions for safe handling: When using do not eat, drink or smoke. Read and follow manufacturer's recommendations. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry place. Keep container tightly closed. Keep from contact with oxidizing materials.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Sodium hydroxide (Na(OH))	Ceiling	2 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
	Ceiling	2 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
Sodium hydroxide (Na(OH)) - Particulate.	AN ESL	2 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)
	ST ESL	20 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (07 2011)
Sodium hydroxide (Na(OH))	Ceiling	2 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (08 2010)
	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values, as amended (12 2010)
	Ceil_Time	2 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2005)
	PEL	2 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	IDLH	10 mg/m3	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)

Appropriate Engineering Controls No special requirements under ordinary conditions of use and with adequate ventilation.

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

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:	Wear safety glasses with side shields (or goggles).
Skin Protection	
Hand Protection:	Chemical resistant gloves Suitable gloves can be recommended by the glove supplier. Wash hands after contact.
Other:	Wear a lab coat or similar protective clothing.
Respiratory Protection:	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.
Hygiene measures:	Observe good industrial hygiene practices.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	Aqueous Solution
Color:	Colorless
Odor:	Characteristic
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	No data available.
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.

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

Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	Product is not reactive under normal conditions and recommended use.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Material is stable under normal conditions.
Conditions to avoid:	Avoid exposure to high temperatures or direct sunlight.
Incompatible Materials:	Water reactive material. Metals. Avoid contact with oxidizers or reducing agents. Avoid contact with acids.
Hazardous Decomposition Products:	Contact with acids liberates toxic gas. Stable; however, may decompose if heated.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	No data available.
Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion:	No data available.
Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product:	No data available.

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

Dermal

Product:	No data available.

Inhalation

Product:	ATEmix: 525 mg/l

Repeated dose toxicity

Product:	No data available.

Specified substance(s):

Hypochlorous acid, sodium salt (1:1)	LOAEL (Rat(Female), Oral, 90 d): > 24.9 mg/kg Oral Experimental result, Key study LOAEL (Mouse(Female, Male), Oral, 90 d): > 34.4 mg/kg Oral Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation): <= 3 mg/m3 Inhalation Read-across from supporting substance (structural analogue or surrogate), Supporting study LOAEL (Rat(Male), Oral, 90 d): > 16.7 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female), Oral, 90 d): >= 24.9 mg/kg Oral Experimental result, Key study

Skin Corrosion/Irritation

Product:	No data available.

Specified substance(s):

Hypochlorous acid, sodium salt (1:1)	in vivo (Rabbit): Irritating Experimental result, Supporting study
Sodium hydroxide (Na(OH))	in vivo (Rabbit): Irritating Experimental result, Weight of Evidence study in vivo (Rabbit): Slightly irritating Experimental result, Weight of Evidence study

Serious Eye Damage/Eye Irritation

Product:	No data available.

Specified substance(s):

Sodium hydroxide (Na(OH))	in vivo (Rabbit, 1 d): Mild irritant OECD GHS in vivo (Rabbit, 2 d): Mild irritant OECD GHS in vivo (Rabbit, 3 d): Mild irritant OECD GHS in vivo (Rabbit, 4 d): Mild irritant OECD GHS

Respiratory or Skin Sensitization

Product:	No data available.

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

Specified substance(s):

Hypochlorous acid, sodium salt (1:1)	Skin sensitization:, in vivo (Guinea pig): Non sensitising

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: Toxic to aquatic organisms.

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

Aquatic Invertebrates
Product: Toxic to aquatic organisms.

Chronic hazards to the aquatic environment:

Fish
Product: Substantial amounts of the product may lead to a local change in acidity in small water systems which may have adverse effects on aquatic organisms.

Aquatic Invertebrates
Product: Aquatic plants and animals may be adversely affected if they have direct contact with this material.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation
Product: The subject product is expected to biodegrade and is not expected to persist for long periods in an aquatic environment.

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Hypochlorous acid, sodium salt (1:1)	No data available.
Sodium hydroxide (Na(OH))	No data available.

Other adverse effects: None known.

13. Disposal considerations

General information: This material and its container must be disposed of as hazardous waste. Dispose of waste and residues in accordance with local authority requirements.

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

Disposal instructions:	Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Contaminated Packaging:	No data available.

14. Transport information

DOTUN Number:	Not regulated.
UN Proper Shipping Name:	Not regulated.
Transport Hazard Class(es)	
Class:	Not regulated.
Label(s):	Not regulated.
Packing Group:	Not regulated.
Marine Pollutant:	Not regulated.
Limited quantity	Not regulated.
Excepted quantity	Not regulated.
Special precautions for user:	Not regulated.

IMDG

UN Number:	Not regulated.
UN Proper Shipping Name:	Not regulated.
Transport Hazard Class(es)	
Class:	Not regulated.
Subsidiary risk:	Not regulated.
EmS No.:	Not regulated.
Packing Group:	Not regulated.
Environmental Hazards	
Marine Pollutant:	Not regulated.
Special precautions for user:	Not regulated.

IATA

UN Number:	Not regulated.
Proper Shipping Name:	Not regulated.
Transport Hazard Class(es):	
Class:	Not regulated.
Subsidiary risk:	Not regulated.
Packing Group:	Not regulated.
Environmental Hazards	
Marine pollutant:	Not regulated.
Special precautions for user:	Not regulated.

15. Regulatory information

US Federal Regulations

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

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable quantity
Hypochlorous acid, sodium salt (1:1)	100 lbs.
Sodium hydroxide (Na(OH))	1000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate (Acute) Health Hazards
Skin Corrosion or Irritation
Serious eye damage or eye irritation

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

SARA 304 Emergency Release Notification
None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity

SARA 313 (TRI Reporting)
None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

Chemical Identity	Reportable quantity
Hypochlorous acid, sodium salt (1:1)	Reportable quantity: 100 lbs.
Sodium hydroxide (Na(OH))	Reportable quantity: 1000 lbs.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65
No ingredient requiring a warning under CA Prop 65.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity
Hypochlorous acid, sodium salt (1:1)

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

US. Massachusetts RTK - Substance List
No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances
No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK
No ingredient regulated by RI Right-to-Know Law present.

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

Issue Date:	05/06/2020
Version #:	3.2
Revision Information:	
Source of information:	European Chemicals Agency (ECHA): Information on Chemicals.
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.