



# NONHAZARDOUS

## Safety Data Sheet

Endo F1

This safety data sheet was created according to the requirements of:  
OSHA 29 CFR 1910.1200  
Version 3.01  
revised on Jan 31, 2024

### Section 1 Identification of the Substance and of the Company

#### Product identifier

Product numbers	E-EF01, E-EF01-200, E-EF01-20, KE-EFX3
Product name	Endo F1
Synonyms	Endo F1, Endo- $\beta$ -N-acetylglucosaminidase F1 Endoglycosidase F1

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

Laboratory chemicals  
For research use only. Not intended for human or animal diagnostic or therapeutic uses  
or used in the manufacture of food or pharmaceutical products

#### Details of the supplier of the safety data sheet

QA-Bio, Inc - 128 Vista Monte - Palm Desert, CA 92260  
Tel: +1 760-249-2664  
Email: [safety@qa-bio.com](mailto:safety@qa-bio.com), Website: [www.QA-Bio.com](http://www.QA-Bio.com)

#### Emergency telephone number

Tel: +1 760-249-2664

### Section 2 Hazards Identification

#### Classification of the substance or mixture

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label elements None

Hazard Statements This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other information No information available

### Section 3 Composition of the Material

#### Substance

Purified protein in a non-hazardous buffer solution in a 0.5 ml polypropylene vial

#### Mixtures

The product does not contain any substances considered to be hazardous to health at their given concentration.

### Section 4 First Aid Measures

#### In case of contact:

Eyes: irrigate with plenty of water.  
Skin: wash with soap and water.  
Ingestion: drink plenty of water.  
Inhalation: move to a well ventilated area and clear nose and throat.

## Section 5 Firefighting Measures

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

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical No information available.

Explosion data

Sensitivity to mechanical impact None

Sensitivity to static discharge None

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

## Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

## Section 7 Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

## Section 8: Exposure controls/personal protection

Control parameters

Exposure Limits

Other information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering controls Showers

Eyewash stations

Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice

## Section 9 Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colorless
Color	No information available
Odor	Mild
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air	None known	
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	392.78 °C	
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

### Other information

Information with regard to physical hazard classes	Not applicable
Other safety characteristics	No information available

## Section 10 Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

## Section 11 Toxicological information

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

**Section 11 Toxicological information - continued**Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

## Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	25,200.00 mg/kg
ATEmix (dermal)	20,000.00 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapor)	99,999.00 mg/l
ATEmix (inhalation-dust/mist)	99,999.00 mg/l

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

**Section 12 Ecological information**

## Ecotoxicity

Persistence and degradability No information available.

Bioaccumulation No information available.

Component Information No information available.

Other adverse effects No information available.

**Section 13 Disposal considerations**

## Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

**Section 14 Transport information**

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO(air) Not regulated

IATA Not regulated

IMDG Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

## Section 15 Regulatory information

### International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIC	Contact supplier for inventory compliance status.
NZIoC	Contact supplier for inventory compliance status.

### US Federal Regulations

SARA 313 - Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories -Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act) - This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA - This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### US State Regulations

California Proposition 65 - This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations - This product does not contain any substances regulated under applicable state right-to-know regulations

### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

## Section 16 Other Information

NFPA	Health hazards 0	Flammability 1	Instability 0	Special hazards -
HMIS	Health hazards 0	Flammability 1	Physical hazards 0	Personal protection X

This document includes information that is believed to be correct based upon currently available knowledge. It is not all-inclusive and does not represent the sum total of information known about the material described herein.

revised on Jan 31, 2024



# NONHAZARDOUS

## Safety Data Sheet

Endo F2

This safety data sheet was created according to the requirements of:  
OSHA 29 CFR 1910.1200  
Version 3.01  
revised on Jan 31, 2024

### Section 1 Identification of the Substance and of the Company

#### Product identifier

Product numbers	E-EF02, E-EF02-200, E-EF02-20, KE-EFX3
Product name	Endo F2
Synonyms	Endo F2, Endo- $\beta$ -N-acetylglucosaminidase F2 Endoglycosidase F2

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

Laboratory chemicals  
For research use only. Not intended for human or animal diagnostic or therapeutic uses  
or used in the manufacture of food or pharmaceutical products

#### Details of the supplier of the safety data sheet

QA-Bio, Inc - 128 Vista Monte - Palm Desert, CA 92260  
Tel: +1 760-249-2664  
Email: [safety@qa-bio.com](mailto:safety@qa-bio.com), Website: [www.QA-Bio.com](http://www.QA-Bio.com)

#### Emergency telephone number

Tel: +1 760-249-2664

### Section 2 Hazards Identification

#### Classification of the substance or mixture

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label elements None

Hazard Statements This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other information No information available

### Section 3 Composition of the Material

#### Substance

Purified protein in a non-hazardous buffer solution in a 0.5 ml polypropylene vial

#### Mixtures

The product does not contain any substances considered to be hazardous to health at their given concentration.

### Section 4 First Aid Measures

#### In case of contact:

Eyes: irrigate with plenty of water.  
Skin: wash with soap and water.  
Ingestion: drink plenty of water.  
Inhalation: move to a well ventilated area and clear nose and throat.

## Section 5 Firefighting Measures

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

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical No information available.

Explosion data

Sensitivity to mechanical impact None

Sensitivity to static discharge None

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

## Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

## Section 7 Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

## Section 8: Exposure controls/personal protection

Control parameters

Exposure Limits

Other information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering controls Showers

Eyewash stations

Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice

## Section 9 Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colorless
Color	No information available
Odor	Mild
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air	None known	
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	392.78 °C	
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

### Other information

Information with regard to physical hazard classes	Not applicable
Other safety characteristics	No information available

## Section 10 Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

## Section 11 Toxicological information

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.



**Section 11 Toxicological information - continued**Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

## Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	25,200.00 mg/kg
ATEmix (dermal)	20,000.00 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapor)	99,999.00 mg/l
ATEmix (inhalation-dust/mist)	99,999.00 mg/l

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

**Section 12 Ecological information**

## Ecotoxicity

Persistence and degradability No information available.

Bioaccumulation No information available.

Component Information No information available.

Other adverse effects No information available.

**Section 13 Disposal considerations**

## Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

**Section 14 Transport information**

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO(air) Not regulated

IATA Not regulated

IMDG Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

## Section 15 Regulatory information

### International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIC	Contact supplier for inventory compliance status.
NZIoC	Contact supplier for inventory compliance status.

### US Federal Regulations

SARA 313 - Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories -Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act) - This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA - This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### US State Regulations

California Proposition 65 - This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations - This product does not contain any substances regulated under applicable state right-to-know regulations

### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

## Section 16 Other Information

NFPA	Health hazards 0	Flammability 1	Instability 0	Special hazards -
HMIS	Health hazards 0	Flammability 1	Physical hazards 0	Personal protection X

This document includes information that is believed to be correct based upon currently available knowledge. It is not all-inclusive and does not represent the sum total of information known about the material described herein.

revised on Jan 31, 2024



# NONHAZARDOUS

## Safety Data Sheet

Endo F3

This safety data sheet was created according to the requirements of:  
OSHA 29 CFR 1910.1200  
Version 3.01  
revised on Jan 31, 2024

### Section 1 Identification of the Substance and of the Company

#### Product identifier

Product numbers	E-EF03, E-EF03-200, E-EF03-20, KE-EFX3
Product name	Endo F3
Synonyms	Endo F3, Endo- $\beta$ -N-acetylglucosaminidase F2 Endoglycosidase F3

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

Laboratory chemicals  
For research use only. Not intended for human or animal diagnostic or therapeutic uses  
or used in the manufacture of food or pharmaceutical products

#### Details of the supplier of the safety data sheet

QA-Bio, Inc - 128 Vista Monte - Palm Desert, CA 92260  
Tel: +1 760-249-2664  
Email: [safety@qa-bio.com](mailto:safety@qa-bio.com), Website: [www.QA-Bio.com](http://www.QA-Bio.com)

#### Emergency telephone number

Tel: +1 760-249-2664

### Section 2 Hazards Identification

#### Classification of the substance or mixture

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label elements None

Hazard Statements This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other information No information available

### Section 3 Composition of the Material

#### Substance

Purified protein in a non-hazardous buffer solution in a 0.5 ml polypropylene vial

#### Mixtures

The product does not contain any substances considered to be hazardous to health at their given concentration.

### Section 4 First Aid Measures

#### In case of contact:

Eyes: irrigate with plenty of water.  
Skin: wash with soap and water.  
Ingestion: drink plenty of water.  
Inhalation: move to a well ventilated area and clear nose and throat.

## Section 5 Firefighting Measures

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

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical No information available.

Explosion data

Sensitivity to mechanical impact None

Sensitivity to static discharge None

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

## Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

## Section 7 Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

## Section 8: Exposure controls/personal protection

Control parameters

Exposure Limits

Other information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering controls Showers

Eyewash stations

Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice

## Section 9 Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colorless
Color	No information available
Odor	Mild
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air	None known	
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	392.78 °C	
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

### Other information

Information with regard to physical hazard classes	Not applicable
Other safety characteristics	No information available

## Section 10 Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

## Section 11 Toxicological information

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

**Section 11 Toxicological information - continued**Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

## Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	25,200.00 mg/kg
ATEmix (dermal)	20,000.00 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapor)	99,999.00 mg/l
ATEmix (inhalation-dust/mist)	99,999.00 mg/l

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

**Section 12 Ecological information**

## Ecotoxicity

Persistence and degradability No information available.

Bioaccumulation No information available.

Component Information No information available.

Other adverse effects No information available.

**Section 13 Disposal considerations**

## Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

**Section 14 Transport information**

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO(air) Not regulated

IATA Not regulated

IMDG Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

## Section 15 Regulatory information

### International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIC	Contact supplier for inventory compliance status.
NZIoC	Contact supplier for inventory compliance status.

### US Federal Regulations

SARA 313 - Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories -Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act) - This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA - This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### US State Regulations

California Proposition 65 - This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations - This product does not contain any substances regulated under applicable state right-to-know regulations

### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

## Section 16 Other Information

NFPA	Health hazards 0	Flammability 1	Instability 0	Special hazards -
HMIS	Health hazards 0	Flammability 1	Physical hazards 0	Personal protection X

This document includes information that is believed to be correct based upon currently available knowledge. It is not all-inclusive and does not represent the sum total of information known about the material described herein.

revised on Jan 31, 2024



# NONHAZARDOUS

## Safety Data Sheet

### Buffer 4.5

This safety data sheet was created according to the requirements of:  
OSHA 29 CFR 1910.1200  
Version 3.01  
revised on Jan 31, 2024

## Section 1 Identification of the Substance and of the Company

### Product identifier

Product numbers	E-EF02, E-EF02-200, E-EF02-20, KE-EFX3
Product name	Buffer 4.5
Synonyms	Not applicable

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

Laboratory chemicals  
For research use only. Not intended for human or animal diagnostic or therapeutic uses  
or used in the manufacture of food or pharmaceutical products

### Details of the supplier of the safety data sheet

QA-Bio, Inc - 128 Vista Monte - Palm Desert, CA 92260  
Tel: +1 760-249-2664  
Email: [safety@qa-bio.com](mailto:safety@qa-bio.com), Website: [www.QA-Bio.com](http://www.QA-Bio.com)

### Emergency telephone number

Tel: +1 760-249-2664

## Section 2 Hazards Identification

### Classification of the substance or mixture

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label Elements None

Hazard Statements This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other information No information available

## Section 3 Composition of the Material

### Substance

Contains a non-hazardous buffer solution in a 0.5 ml polypropylene vial

### Mixtures

The product does not contain any substances considered to be hazardous to health at their given concentration.

## Section 4 First Aid Measures

### In case of contact:

Eyes: irrigate with plenty of water.  
Skin: wash with soap and water.  
Ingestion: drink plenty of water.  
Inhalation: move to a well ventilated area and clear nose and throat.



## Section 5 Firefighting Measures

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

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical No information available.

Explosion data

Sensitivity to mechanical impact None

Sensitivity to static discharge None

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

## Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

## Section 7 Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

## Section 8: Exposure controls/personal protection

Control parameters

Exposure Limits

Other information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering controls Showers

Eyewash stations

Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice

## Section 9 Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colorless
Color	No information available
Odor	Mild
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air	None known	
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	392.78 °C	
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

### Other information

Information with regard to physical hazard classes	Not applicable
Other safety characteristics	No information available

## Section 10 Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

## Section 11 Toxicological information

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

**Section 11 Toxicological information - continued**Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	No information available.
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Acute toxicity

## Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	25,200.00 mg/kg
ATEmix (dermal)	20,000.00 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapor)	99,999.00 mg/l
ATEmix (inhalation-dust/mist)	99,999.00 mg/l

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

**Section 12 Ecological information**

## Ecotoxicity

Persistence and degradability	No information available.
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Bioaccumulation	No information available.
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Component Information	No information available.
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Other adverse effects	No information available.
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**Section 13 Disposal considerations**

## Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

**Section 14 Transport information**

DOT	Not regulated
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TDG	Not regulated
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MEX	Not regulated
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ICAO(air)	Not regulated
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IATA	Not regulated
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IMDG	Not regulated
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RID	Not regulated
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ADR	Not regulated
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ADN	Not regulated
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## Section 15 Regulatory information

### International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIC	Contact supplier for inventory compliance status.
NZIoC	Contact supplier for inventory compliance status.

### US Federal Regulations

SARA 313 - Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories -Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act) - This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA - This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### US State Regulations

California Proposition 65 - This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations - This product does not contain any substances regulated under applicable state right-to-know regulations

### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

## Section 16 Other Information

NFPA	Health hazards 0	Flammability 1	Instability 0	Special hazards -
HMIS	Health hazards 0	Flammability 1	Physical hazards 0	Personal protection X

This document includes information that is believed to be correct based upon currently available knowledge. It is not all-inclusive and does not represent the sum total of information known about the material described herein.

revised on Jan 31, 2024



# NONHAZARDOUS

## Safety Data Sheet

### Buffer 5.5

This safety data sheet was created according to the requirements of:  
OSHA 29 CFR 1910.1200  
Version 3.01  
revised on Jan 31, 2024

## Section 1 Identification of the Substance and of the Company

### Product identifier

Product numbers	E-EF01, E-EF01-200, E-EF01-20, KE-EFX3 E-EH02, E-EH02-200, E-EH02-20
Product name	Buffer 5.5
Synonyms	Not applicable

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

Laboratory chemicals  
For research use only. Not intended for human or animal diagnostic or therapeutic uses  
or used in the manufacture of food or pharmaceutical products

### Details of the supplier of the safety data sheet

QA-Bio, Inc - 128 Vista Monte - Palm Desert, CA 92260  
Tel: +1 760-249-2664  
Email: [safety@qa-bio.com](mailto:safety@qa-bio.com), Website: [www.QA-Bio.com](http://www.QA-Bio.com)

### Emergency telephone number

Tel: +1 760-249-2664

## Section 2 Hazards Identification

### Classification of the substance or mixture

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label elements None

Hazard Statements This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other information No information available

## Section 3 Composition of the Material

### Substance

Purified protein in a non-hazardous buffer solution in a 0.5 ml polypropylene vial

### Mixtures

The product does not contain any substances considered to be hazardous to health at their given concentration.

## Section 4 First Aid Measures

### In case of contact:

Eyes: irrigate with plenty of water.  
Skin: wash with soap and water.  
Ingestion: drink plenty of water.  
Inhalation: move to a well ventilated area and clear nose and throat.

## Section 5 Firefighting Measures

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

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical No information available.

Explosion data

Sensitivity to mechanical impact None

Sensitivity to static discharge None

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

## Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

## Section 7 Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

## Section 8: Exposure controls/personal protection

Control parameters

Exposure Limits

Other information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering controls Showers

Eyewash stations

Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice

## Section 9 Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colorless
Color	No information available
Odor	Mild
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air	None known	
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	392.78 °C	
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

### Other information

Information with regard to physical hazard classes	Not applicable
Other safety characteristics	No information available

## Section 10 Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

## Section 11 Toxicological information

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
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Ingestion	Specific test data for the substance or mixture is not available.

**Section 11 Toxicological information - continued**Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

**Section 12 Ecological information**

## Ecotoxicity

Persistence and degradability No information available.

Bioaccumulation No information available.

Component Information No information available.

Other adverse effects No information available.

**Section 13 Disposal considerations**

## Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

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DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO(air) Not regulated

IATA Not regulated

IMDG Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated



## Section 15 Regulatory information

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EPA Pesticide Registration Number Not applicable

## Section 16 Other Information

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revised on Jan 31, 2024