

Defender Full Spectrum Germicidal Wipes

Safety Data Sheet

SECTION 1: Product and company identification

Product name : Defender Full Spectrum Germicidal Wipes
Use of the substance/mixture : Premoistened wipe
Product code : 1616
Company : ARTEMIS BIO SOLUTIONS
14505 TORREY CHASE BLVD SUITE 205
HOUSTON, TX 77014 - US
T 630-359-4090
Emergency number : 630-359-4090

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Eye Irrit. 2 H319

2.2. Label elements

GHS US labelling
Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : Causes serious eye irritation.
Precautionary statements (GHS US) : Wash thoroughly after handling
Wear eye protection, protective clothing, protective gloves.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Butoxydiglycol	(CAS-No.) 112-34-5	7-13	Eye Irrit. 2A, H319
Tetrasodium EDTA	(CAS-No.) 64-02-8	1-5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

All hazardous chemicals, as determined by 29 CFR 1910.1200 have been listed. A specific chemical identity and/or percentage of composition has been withheld as a trade secret. Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Take off contaminated clothing and wash it before reuse. Wash with plenty of water/....
First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Consult a doctor/medical service if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : Causes serious eye irritation.
Symptoms/effects after inhalation : None under normal use.

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Symptoms/effects after skin contact : Contact during a long period may cause light irritation.
Symptoms/effects after eye contact : Causes serious eye irritation.
Symptoms/effects after ingestion : May be harmful if swallowed. Gastrointestinal complaints.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : All extinguishing media allowed.

5.2. Special hazards arising from the substance or mixture

Reactivity : Upon combustion: CO and CO₂ are formed.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Isolate from fire, if possible, without unnecessary risk.

6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Gloves. Protective clothing.
Emergency procedures : Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Stop leak if safe to do so. Stop release. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent soil and water pollution.

6.3. Methods and material for containment and cleaning up

For containment : Contain released product, collect/pump into suitable containers.
Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing.
Hygiene measures : Wash thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.
Storage conditions : Keep container closed when not in use. Store locked up.
Incompatible products : Strong acids. Oxidizing agents.
Storage area : Keep only in the original container. Store in a dry area. Store in a cool area.
Special rules on packaging : meet the legal requirements.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Butoxydiglycol (112-34-5)

ACGIH	ACGIH OEL TWA [ppm]	10 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: Hematologic, liver & kidney eff

Tetrasodium EDTA (64-02-8)

Not applicable

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8.2. Exposure controls

Personal protective equipment : Use appropriate personal protective equipment when risk assessment indicates this is necessary. Safety glasses. Gloves. Protective clothing.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: White wipe impregnated with a colorless liquid
Odour	: Mild odour
Odour threshold	: No data available
pH	: 11.5 – 12.5 - Tested using the liquid component of the towelette.
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 200 °F Closed Cup. - Tested using the liquid component of the towelette.
Relative evaporation rate (butylacetate=1)	: No data available
Flammability	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Relative vapour density at 20 °C	: No data available
Density	: 1.01 g/ml - Tested using the liquid component of the towelette.
Solubility	: Liquid component is soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
VOC content	: < 0.5 % Tested using the liquid component of the towelette

SECTION 10: Stability and reactivity

10.1. Reactivity

Upon combustion: CO and CO₂ are formed.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong acids. Oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Tetrasodium EDTA (64-02-8)

LD50 oral rat	1780 – 2000 mg/kg (Rat, Male / female, Experimental value, Oral)
ATE CLP (oral)	500 mg/kg bodyweight

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Skin corrosion/irritation	: Not classified pH: 11.5 – 12.5 - Tested using the liquid component of the towelette.
Serious eye damage/irritation	: Causes serious eye irritation. pH: 11.5 – 12.5 - Tested using the liquid component of the towelette.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after inhalation	: None under normal use.
Symptoms/effects after skin contact	: Contact during a long period may cause light irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed. Gastrointestinal complaints.

SECTION 12: Ecological information

12.1. Toxicity

Tetrasodium EDTA (64-02-8)	
LC50 - Fish [1]	121 mg/l (US EPA, 96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Soft water)
EC50 - Crustacea [1]	625 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 100 mg/l (EU Method C.3, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Weight of evidence, Nominal concentration)

12.2. Persistence and degradability

Tetrasodium EDTA (64-02-8)	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	< 0.002 g O ₂ /g substance
Chemical oxygen demand (COD)	0.54 – 0.58 g O ₂ /g substance

12.3. Bioaccumulative potential

Tetrasodium EDTA (64-02-8)	
BCF - Fish [1]	1.1 – 1.8 (28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-13.17 (Estimated value, KOWWIN)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Do not flush wipes.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT : Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

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SECTION 15: Regulatory information

EPA Registration Number: 1839-174

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label

Caution: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

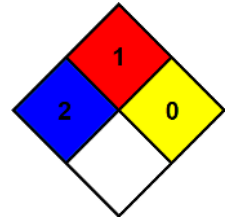
SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Prepared by: Technical Department

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