



UNICIDE® 128

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 02/12/2019 Version: 1.0

SECTION 1: Identification

Identification

Product form : Mixture
Product name : UNICIDE® 128
Product code : 161057

Recommended use and restrictions on use

Recommended use : Disinfectant, Cleaner

Product dilution information: Dilution Rate: 1:128; HBV Dilution 1:85

Supplier

Brulin & Company, Inc.
P.O. Box 270
Indianapolis, IN 46206 - USA
T 1.317.923.3211 - F 1.317.925.4596
Regulatory@bhcinc.com - www.bhcinc.com

Emergency telephone number

Emergency number : CHEMTREC 1.800.424.9300 or CHEMTREC International: 1.703.527.3887

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

GHS-US classification

Skin corrosion/irritation Category 2	Causes skin irritation
Serious eye damage/eye irritation Category 2A	Causes serious eye irritation

GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US):	Warning
Hazard statements (GHS US):	Causes skin irritation Causes serious eye irritation

Precautionary statements (GHS US)

Prevention: Wear eye protection, protective gloves. Wash hands thoroughly after handling.

Response: 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. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Storage: Keep/Store away from incompatible materials

UNICIDE® 128

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Disposal: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

Product Use-Dilution

Signal word (GHS US): None
Hazard statements (GHS US): This product is not hazardous as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Precautionary statements (GHS US)

Prevention: Wash hands thoroughly after handling.

Other hazards which do not result in classification

Other hazards not contributing to the classification : Keep out of the reach of children.

Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

Name	Product identifier	Weight (%)
Citric Acid	(CAS-No.) 77-92-9	1 - 5
Alkyl (C 12-16) Dimethylbenzyl Ammonium Chloride	(CAS-No.) 68424-85-1	1 - 5
Non-Ionic Surfactant**	(CAS-No.) Trade Secret	1 - 5
Octyl Decyl Dimethyl Ammonium Chloride	(CAS-No.) 32426-11-2	1 - 5
Didecyl dimethyl ammonium chloride	(CAS-No.) 7173-51-5	1 - 5
Dioctyl Dimethyl Ammonium Chloride	(CAS-No.) 5538-94-3	1 - 5
Ethyl Hydroxide	(CAS-No.) 64-17-5	1 - 5

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Comments : Proprietary surfactants do not contain any APE's.

Product Use-Dilution

This product is not considered to be hazardous

SECTION 4: First-aid measures

Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact : 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.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

Product Use-Dilution

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Causes skin irritation. Irritation (itching, redness, blistering).
Symptoms/effects after eye contact : Eye irritation. Redness, itching, tears. Stinging.

UNICIDE® 128

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures : Avoid contact with skin and eyes.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment.

Environmental precautions

Do not allow product to spread into the environment. Do not allow to enter drains or water courses.

Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

Product Use-Dilution

Methods for cleaning up : Take up liquid spill into absorbent material.

Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Do not mix with other chemicals.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Product Use-Dilution

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Conditions for safe storage, including any incompatibilities

Storage conditions : Store, if possible, in a cool, well ventilated place away from incompatible materials. Keep away from incompatible materials. Keep out of the reach of children.

UNICIDE® 128

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 8: Exposure controls/personal protection

Control parameters

Citric Acid (77-92-9)		
Not applicable		
Alkyl (C 12-16) Dimethylbenzyl Ammonium Chloride (68424-85-1)		
Not applicable		
Non-Ionic Surfactant*		
Not applicable		
Octyl Decyl Dimethyl Ammonium Chloride (32426-11-2)		
Not applicable		
Didecyldimethylammonium chloride (7173-51-5)		
Not applicable		
Diocetyl Dimethyl Ammonium Chloride (5538-94-3)		
Not applicable		
Ethyl Hydroxide (64-17-5)		
ACGIH	Local name	Ethyl Hydroxide
ACGIH	ACGIH STEL (ppm)	1000 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: URT irr. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m ³)	1900 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Eyewash station.
Environmental exposure controls : Do not exceed the occupational exposure limits (OEL). Do not allow product to spread into the environment.

Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

No respiratory protection needed under normal use conditions. In case of insufficient ventilation, wear suitable respiratory equipment

UNICIDE® 128

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Product Use-Dilution

Hand protection	: None under normal conditions. In case of repeated or prolonged exposure wear protective gloves
Eye protection	: None under normal conditions. If a risk assessment indicates this is necessary, safety glasses are recommended.
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: No respiratory protection needed under normal use conditions.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: clear.
Color	: Green
Odor	: Light Sassafras
Odor threshold	: No data available
pH	: 0.8 - 1.9
Melting point	: 32 °F
Freezing point	: 32 °F
Boiling point	: >= 212 °F
Flash point	: Does Not Flash
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 1.01
Solubility	: Water: 100 %
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
VOC content	: 1.1 % Less Exempts and Water

Product Use-Dilution

Physical state	: Liquid
Color (SDS US)	: Green
Odor (SDS US)	: Light Sassafras
pH	: 4.2
Flash point	: Does Not Flash

UNICIDE® 128

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

VOC content	0.01 % Less Exempts and Water
--------------------	-------------------------------

SECTION 10: Stability and reactivity

Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

Conditions to avoid

Incompatible materials. Do not mix with other chemicals.

Incompatible materials

Bases. Reducing agent.

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 (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

ATE US (oral)	7410 mg/kg
ATE US (dermal)	> 5000 mg/kg
ATE US (vapors)	25 mg/l

Skin corrosion/irritation : Causes skin irritation.
pH: 0.8 - 1.9
Serious eye damage/irritation : Causes serious eye irritation.
pH: 0.8 - 1.9
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Product Use-Dilution

ATE US (oral)	> 5000 mg/kg
ATE US (dermal)	> 5000 mg/kg
ATE US (vapors)	25 mg/l/4h

Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified
Specific target organ toxicity – repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available

UNICIDE® 128

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Symptoms/effects after skin contact : Causes skin irritation. Irritation (itching, redness, blistering).
Symptoms/effects after eye contact : Eye irritation. Redness, itching, tears. Stinging.

SECTION 12: Ecological information

Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects. Before neutralization, the product may represent a danger to aquatic organisms. Accumulation in aquatic organisms is expected.

Persistence and degradability

Citric Acid (77-92-9)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.42 g O ₂ /g substance
Chemical oxygen demand (COD)	0.728 g O ₂ /g substance
ThOD	0.686 g O ₂ /g substance
BOD (% of ThOD)	0.89 (20 day(s), Literature study)

Didecyldimethylammonium chloride (7173-51-5)	
Persistence and degradability	Readily biodegradable in water.

Ethyl Hydroxide (64-17-5)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.8 - 0.967 g O ₂ /g substance
Chemical oxygen demand (COD)	1.7 g O ₂ /g substance
ThOD	2.1 g O ₂ /g substance
BOD (% of ThOD)	0.43

Bioaccumulative potential

Citric Acid (77-92-9)	
BCF other aquatic organisms 1	3.2 (Other, Calculated value)
Log Pow	-1.8 - -1.55 (Experimental value)
Bioaccumulative potential	Not bioaccumulative.

Didecyldimethylammonium chloride (7173-51-5)	
BCF fish 1	81 (Other, 46 day(s), Lepomis macrochirus, Experimental value)
Log Pow	4.66 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Ethyl Hydroxide (64-17-5)	
BCF fish 1	1 (Other, 72 h, Cyprinus carpio, Static system, Fresh water, Read-across)
Log Pow	-0.31 (Experimental value)
Log Kow	-0.31 Partition coefficient n-octanol / water (log Kow)

UNICIDE® 128

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Bioaccumulative potential	Not bioaccumulative.
---------------------------	----------------------

Mobility in soil

Citric Acid (77-92-9)

Ecology - soil	No (test)data on mobility of the substance available.
----------------	---

Didecyldimethylammonium chloride (7173-51-5)

Surface tension	0.02582 N/m (20 °C, 1 g/l, EU Method A.5: Surface tension)
Ecology - soil	No (test)data on mobility of the substance available.

Ethyl Hydroxide (64-17-5)

Surface tension	0.022 N/m (20 °C)
Ecology - soil	Highly mobile in soil.

Other adverse effects

No additional information available

SECTION 13: Disposal considerations

Disposal methods

- Waste treatment methods : Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Fill container ¼ full with water and reclose the container. Agitate vigorously, and dispose of rinsate consistent with pesticide disposal instructions. Repeat two more times. Then offer for recycling if available or puncture and dispose in sanitary landfill or by other procedures approved by state and local authorities. Follow pesticide disposal instructions for rinsate. If not triple rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state, and federal regulations.

Product Use-Dilution

- Waste treatment methods : Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

SECTION 14: Transport information

US - DOT

Not regulated for transport

International shipping – IMDG

Not regulated for transport

UNICIDE® 128

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

International – IATA

Not regulated for transport

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Alkyl (C 12-16) Dimethylbenzyl Ammonium Chloride (68424-85-1)	
EPA TSCA Regulatory Flag	TP - TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule.
Non-ionic Surfactant*	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
FIFRA Labelling	
EPA Registration Number	106-72
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.	
FIFRA Signal Word	Danger
FIFRA Precautionary Statement	Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed.
FIFRA Human Health Hazards	Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses), protective clothing and rubber gloves. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.
FIFRA First Aid	Have the product container or label with you when calling a poison control center or doctor, or going for treatment. IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

UNICIDE® 128

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

FIFRA Environmental Hazards	Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.
FIFRA Other	STORAGE AND DISPOSAL Do not contaminate water, food or feed by storage or disposal. PESTICIDE STORAGE: Store in original container in areas inaccessible to small children. Keep container closed when not in use. Do not reuse empty container. PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse as follows: Fill container ¼ full with water and reclose the container. Agitate vigorously, and dispose of rinsate consistent with pesticide disposal instructions. Repeat two more times. Then offer for recycling if available or puncture and dispose in sanitary landfill or by other procedures approved by state and local authorities. Follow pesticide disposal instructions for rinsate. If not triple rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state, and federal regulations.

Product Use-Dilution

FIFRA Signal Word	Caution
FIFRA Precautionary Statement	Causes moderate eye irritation. Harmful if swallowed or absorbed by the skin.
FIFRA Human Health Hazards	Avoid contact with eye, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

15.2. International regulations

CANADA

No additional information available.

EU-Regulations

No additional information available

15.3. US State regulations

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

UNICIDE® 128

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Component	State or local regulations
Ethyl Hydroxide(64-17-5)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 02/12/2019

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product