Safety Data Sheet

Mixture Pure3000

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012) Issue date: 10/3/2021 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form	:
Trade name	:

1.2. Recommended use and restrictions on use

Use of the substance/mixture
Recommended use
Restrictions on use

Disinfectant
Biocidal products (e.g. Disinfectants, pest control)
Other

1.3. Supplier

PureLine Treatment Systems, LLC. 1241 N. Ellis Street Bensenville, IL 60106 U.S. T 847-963-8465

1.4. Emergency telephone number

Emergency number

: (800)255-3924, +1 (813)248-0585 [ChemTel]

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 4 Serious eye damage/eye irritation Category 2 Harmful if swallowed Causes serious eye irritation

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)

Signal word (GHS US)	: Warning
Hazard statements (GHS US)	: Harmful if swallowed
	Causes serious eye irritation
Precautionary statements (GHS US)	: Wash hands, forearms and face thoroughly after handling.
	Do not eat, drink or smoke when using this product.
	Wear eye protection, protective clothing, protective gloves.
	If swallowed: Call a POISON CENTER if you feel unwell.
	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present
	and easy to do. Continue rinsing.
	Rinse mouth.
	If eye irritation persists: Get medical advice/attention.
	Dispose of contents/container to hazardous or special waste collection point, in accordance with

local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
chlorine dioxide %	CAS-No.: 10049-04-4	0.3

The specific chemical\ component identities and/or the exact component percentages of this material may be withheld as trade secrets. This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center/doctor/physician if you feel unwell. If medical advice is needed, have product container or label at hand. refer to label.	
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If breathing stops, give artificial respiration. Call 911, if available.	
First-aid measures after skin contact	: Wash skin with plenty of water. Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Take off contaminated clothing.	
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. Immediately call a poison center or doctor/physician.	
First-aid measures after ingestion	: If swallowed, seek medical advice immediately and show this container or label. Immediately call a poison center or doctor/physician. Rinse mouth. Do not induce vomiting because of corrosive effects.	
4.2. Most important symptoms and effects (acute and delayed)		

Effects on humans	:	NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate for the use of gastric
		lavage.
Symptoms/effects after eye contact	:	Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media

: Use extinguishing media appropriate for surrounding fire.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire :		Toxic fumes may be released.
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5.3. 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.

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. 6.1.2. For emergency responders Protective equipment Protective equipment : Do not attempt to take action without suitable protective equipment. For further information reference to section 8: "Exposure controls/personal protection". 6.2. Environmental precautions Avoid release to the environment. 6.3. Methods and material for containment and cleaning up Methods for cleaning up : Take up liquid spill into absorbent material. Other information : Dispose of materials or solid residues at an authorized site. 6.4. Reference to other sections	6.1. Personal precautions, protective e	quipment and emergency procedures
6.1.2. For emergency responders Protective equipment : Do not attempt to take action without suitable protective equipment. For further information reference to section 8: "Exposure controls/personal protection". 6.2. Environmental precautions Avoid release to the environment. 6.3. Methods and material for containment and cleaning up Methods for cleaning up : Take up liquid spill into absorbent material. Other information : Dispose of materials or solid residues at an authorized site. 6.4. Reference to other sections	6.1.1. For non-emergency personnel	
Protective equipment : Do not attempt to take action without suitable protective equipment. For further information reference to section 8: "Exposure controls/personal protection". 6.2. Environmental precautions Avoid release to the environment. 6.3. Methods and material for containment and cleaning up Methods for cleaning up : Take up liquid spill into absorbent material. Other information : Dispose of materials or solid residues at an authorized site. 6.4. Reference to other sections	Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes.
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6.4. Reference to other sections	Methods for cleaning up	: Take up liquid spill into absorbent material.
	Other information	: Dispose of materials or solid residues at an authorized site.
For further information refer to section 13.	6.4. Reference to other sections	
	For further information refer to section 13.	
	SECTION 7: Handling and storage	

7.1. 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.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool.
Storage temperature	: 35 – 80 °F

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Pure3000		
No additional information available		
chlorine dioxide % (10049-04-4)		
USA - ACGIH - Occupational Exposure Limits		
Local name	Chlorine dioxide	
ACGIH OEL C [ppm]	0.1 ppm	
Remark (ACGIH)	TLV® Basis: Resp tract irr; pulm edema	
Regulatory reference	ACGIH 2021	
USA - OSHA - Occupational Exposure Limits		
Local name	Chlorine dioxide	
OSHA PEL TWA [1]	0.3 mg/m³	
OSHA PEL TWA [2]	0.1 ppm	
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1	

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

8.2. Appropriate engineering controls

Appropriate engineering controls Environmental exposure controls : Ensure good ventilation of the work station.: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Protective clothing. Gloves.

Hand protection:	
Protective gloves	
Eye protection:	
Safety glasses	
Skin and body protection:	
Wear suitable protective clothing	
Respiratory protection:	
In case of insufficient ventilation, wear suitable respiratory equipment	

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Color	:	Green to yellow
Odor	:	chlorine-like
Odor threshold	:	No data available
pН	:	6 – 8
Melting point	:	Not applicable
Freezing point	:	32 °F
Boiling point	:	212 °F
Flash point	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Not applicable
		Not applicable.
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	1.03 g/cm³
Solubility	:	Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	Not applicable
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong bases. Strong acids. Combustible materials.

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

Dure 2000	
Acute toxicity (inhalation)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (oral)	: Harmful if swallowed.

Pure3000	
ATE US (oral)	333.333 mg/kg body weight
chlorine dioxide % (10049-04-4)	
ATE US (oral)	100 mg/kg body weight
Skin corrosion/irritation	: Not classified
	pH: 6 – 8
Serious eye damage/irritation	: Causes serious eye irritation.
	pH: 6 – 8
Respiratory or skin sensitization	: 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
Viscosity, kinematic	: Not applicable
Effects on humans	: NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate for the use of gastric
	lavage.
Symptoms/effects after eye contact	: Eye irritation.

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

chlorine dioxide % (10049-04-4)		
Persistence and degradability	Biodegradability: not applicable.	
12.3. Bioaccumulative potential		

12.3. Bioaccumulative potential

chlorine dioxide % (10049-04-4)	
Bioaccumulative potential	Does not contain bioaccumulative component(s).

12.4. Mobility in soil

chlorine dioxide % (10049-04-4)		
Ecology - soil No	(test)data on mobility of the component(s) available.	

12.5. Other adverse effects

No additional information available

13.1. Disposal methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) Proper Shipping Name (TDG) Proper Shipping Name (IMDG) Proper Shipping Name (IATA)	Not applicableNot applicableNot applicableNot applicableNot applicable
14.3. Transport hazard class(es)	
DOT Transport hazard class(es) (DOT)	: Not applicable
TDG Transport hazard class(es) (TDG)	: Not applicable
IMDG Transport hazard class(es) (IMDG)	: Not applicable
IATA Transport hazard class(es) (IATA)	: Not applicable
14.4. Packing group	
Packing group (DOT)	: Not applicable

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Packing group (TDG) Packing group (IMDG) Packing group (IATA)

14.5. Environmental hazards

Other information

: No supplementary information available.

: Not applicable

: Not applicable

: Not applicable

14.6. Special precautions for user

DOT No data available

TDG

No data available

IMDG

No data available

IATA No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed as Active, or excluded from listing, 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.

chlorine dioxide %	CAS-No. 10049-04-4	0.3%
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FIFRA Labelling

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	Caution
FIFRA Precautionary Statement	Keep out of reach of children.
FIFRA Human Health Hazards	Causes moderate eye irritation. Harmful if swallowed, absorbed through the skin, or inhaled. Avoid contact with eyes, skin, or clothing.
	PRECAUTIONARY STATEMENTS: Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Handlers applying chlorine dioxide in an occupational setting must wear appropriate chemical resistant gloves. People must vacate the premises during spraying treatments. [For spraying operations] User must wear a half-face respirator with acid gas cartridge and N95 filter.

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

FIFRA Labelling		
FIFRA First Aid	 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 eyes. Call a poison control center or doctor for treatment advice. IF ON SKIN OR CLOTHING: Remove contaminated clothing. Rinse exposed skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment. IF SWALLOWED: Call a poison control center or doctor immediately for treatment. 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 sc by a poison control center or doctor. Do not give anything by mouth to an unconscious person. IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration. Call a poison control center or doctor for further treatment advice NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate for the use of gastric lavage. HOTLINE NUMBERS For chemical spill information call CHEMTREC: 1-800-424-9300. For emergency medical information, call the National Pesticide Information Center at 1-800-858-7378. Have the product container or label with you when calling a poison control center or 	
FIFRA Environmental Hazards	doctor or going for treatment. This product is toxic to fish and aquatic organisms. 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 Physical Hazard	Chlorine dioxide is a strong oxidizing agent. Contamination with materials such as acids, chlorine, and organic chemicals may cause a chemical reaction resulting in evolution of chlorine dioxide and heat explosion and/or fire could result. Keep all chemicals and foreign material away from this solution.	

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

FIFRA Labelling		
FIFRA Other	 STORAGE AND DISPOSAL: Do not contaminate water, food or feed by storage or disposal PESTICIDE STORAGE: Keep containers tightly when not in use. Store in original container in a dark, dry place away from extremes of heat or freezing conditions. Do not store with easily oxidizable materials, acids, bases, or combustible materials. This product is to be used as directed within 9 months of the manufacture date indicated on the front panel of this label. PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of pesticide, prepared solutions, or rinsate is a violation of Federal law. If these wastes cannot be disposed of according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying [For product 5 gallons or less] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds. Pour rinsate into application equipment or a mix tank and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Fill the container uside down over application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Then offer for recycling, or puncture and dispose of in a sanitary landfill or by incineration, or i	

15.2. International 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

Component	State or local regulations
chlorine dioxide %(10049-04-4)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S. – New York City – Right to Know Hazardous Substances List; U.S Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Safety Data Sheet (SDS), USA

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.