SAFETY DATA SHEETS

This SDS packet was issued with item:

078504496

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078494123 078494131 078495420 078504462 078504470 078504488 078907947

MATERIAL SAFETY DATA SHEET
(MSDS) Updated: January 2012

Opticide-3® Disinfectant Cleaner Solution

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1 – Identification-
Micro-Scientific Industries, Inc.
1225 Carnegie Street
Rolling Meadows, Il 60008 USA
General Telephone 1-888-253-2536 24 Hour Emergency Number – 1-800-255-3924
International Emergency Number: 1-813-248-0585

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2 – Composition This product in its ready to use form is not hazardous. The individual ingredients present within the mixture that are greater than 1% of the entire formulation and that when stored or handled by themselves, may present a hazard are:

Hazardous Ingredients:		**OSHA PEL**	**ACGIH TLV**	**LIMIT**	**%**
Isopropanol -	CAS # 67-63-0	400 ppm	980mg/m3	N/A	20.85

3- Hazard Identification Routes of Entry: Eyes: May cause some slight reversible eye irritation with direct contact. **Inhalation:** Prolonged, contained exposure to alcohol vapors may cause light-headedness and /or irritation to nose and throat **Gastric:** May cause some gastric distress **Skin:** May produce some slight redness or irritation although unlikely.

4- First Aid Procedures
Skin: If irritated, rinse with water. If irritation persists, seek medical attention.
Eyes: Flush with water. If irritation persists, seek medical attention**. Ingestion**: Seek medical attention. Drink water or milk. Induce vomiting.
Inhalation/aspiration of liquid: Remove to fresh air. Seek medical assistance

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5 - Fire and Explosion Hazard Data
Flash Point: 87 degrees F. (Closed cup method- trapped alcohol vapors created by heating of liquid) **Flammable Limits:** None **Extinguishing Media:** Alcohol foam, C02, dry chemical **Special Fire Fighting Procedures:** NIOSH for alcohol fires **Unusual fire or explosion hazards:** As with all products containing alcohol, the alcohol vapors may be heavier than air. **Refer to section 10 for specific storage, handling and transportation exemption per Code of US Federal Regulations as an "Aqueous / alcohol" solution**

6- Accidental Release Measures: Absorb spill with absorbent material and place into container for disposal. Rinse with plain water.

7- Storage: Keep out of reach of children. Avoid contact with eyes. Do not store near heat or open flame. Keep container closed when not in use.

Obtained by Global Safety Management, Inc. (www.globalsafetynet.com)

8 – Exposure Control / Personal Protection
Respiratory Protection: N/A **Local Exhaust**: N/A **Mechanical:** Usual
Protective Gloves and/or clothing: N/A
Eye Protection: Avoid direct contact with eyes.

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9 - Physical and Chemical Properties
Liquid Boiling Point: 188 degrees F. **Specific Gravity** (H20=1.0): 0.95 to 0.97
Vapor Pressure (mm Hg): 0.2-4.7 **Vapor Density** (Air = 1): +1
Evaporation Rate: Similar to water **Solubility in Water**: Complete
Freezing point: -10C **Appearance and Odor**: Slight alcohol fragrance. Clear in color. **PH:** 7.5

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10 – Stability and Reactivity Data
Solution: Stable **Conditions to Avoid:** Extreme heat or open flame
Incompatibility: Concentrated acids **Hazardous Polymerization:** Will not occur
Hazardous Decomposition or by-products: Oxides of carbon upon combustion.

11- Toxicological Information
Carcinogenicity NT: No **LARC Monographs**: No

12- Ecological Information: N/A

13- Disposal Considerations: Dispose of in accordance with local regulations.

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14 – Storage / Transportation DOT (49 CFR 173.150e) exemption applies. ***"Alcohol containing solutions containing 24% or less alcohol by volume and which consists of no less than 50% water are exempt from the classification as flammable and require no special ground shipping, storage or handling".***

15- Regulatory Information: All ingredients in this product are listed or excluded from the listing on the US Toxic Substances Act (TSCA) Chemical Substance Inventory

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16 – Other Information: (**Hazard Index**: 4- Severe, 3-Serious 2– Moderate, 1- Slight, 0 –Minimal)

Ratings: Health -0 **FLAMMABILITY-**0 **Reactivity** -0

This MSDS was prepared in accordance with the requirements of the OSHA Hazard Communications Standard (29 CFR 1910.1200) and is to be used only for this product. The information contained in this sheet is believed to the best of our knowledge to be accurate.

Obtained by Global Safety Management, Inc. (www.globalsafetynet.com)

SAFETY DATA SHEET

Confirms to OSHA Hazard Communication Standard (CFR 29 1910.1200) HazCom 2012

Product: Opti-Cide^3® OCP04-128, OCP12-024, OCS12-024, S5-1, S5Q-1 **Revision Date:** 01-Feb-2017

SECTION 1 – IDENTIFICATION

Product Identifier

Product Name: **Opti-Cide^3®**

Product Code: **OCP04-128, OCP12-024, OCS12-024, S5-1, S5Q-1**

Recommended Use of the Chemical and Restrictions for Use

Recommended Use: Cleaner, Disinfectant, Deodorizer

Restrictions for Use: Use only as directed.

Details of the Supplier

Manufacturer: Micro-Scientific, LLC
755 Tri-State Parkway
Gurnee, IL 60031
1-888-253-2536

Emergency Phone Number

24-Hour Number: 1-800-535-5053

International: 1-352-323-3500

SECTION 2 – HAZARDS IDENTIFICATION

Classification

Hazard Class	Category
Flammable liquid	3
Eye irritation	2A
Specific target organ toxicity (single exposure)	3

Label Elements

Hazard Symbols(s):



Signal Word(s): Warning

Hazard Statement(s): Flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness.

Precautionary Statement(s): Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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 inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other Hazards

1% of the mixture consists of ingredient(s) of unknown acute toxicity.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Wt %
Isopropyl alcohol	67-63-0	10-30
2-Butoxyethanol	111-76-2	1-5

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4 – FIRST AID MEASURES

First Aid Measures

Inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

Skin: In case of contact, immediately flush skin with plenty of water. Remove contaminate clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

Most Important Symptoms and Effects (Acute and Delayed)

Inhalation: Vapors may cause drowsiness and dizziness. May cause respiratory tract irritation.

Eye Contact: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Skin: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physician: Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Extinguishing Media

Suitable: Water fog, carbon dioxide, dry chemical or alcohol foam.

Unsuitable: None known.

Specific Hazards Arising from Chemical

Products of combustion include but are not limited to: oxides of carbon.

Protective Equipment and Precautions for Firefighters

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Personal Precautions: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

Environmental Precautions: See Section 12 for ecological information.

Methods and Material for Containment and Cleaning Up

Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE). Scoop up material and place in a disposal container. Provide ventilation.

SECTION 7 – HANDLING AND STORAGE

Precautions for Safe Handling

Handling: Keep away from sources of ignition. No smoking. Take precautionary measures against static discharge. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only non-sparking tools. Use only outdoors or in well-ventilated area.

General Hygiene Advice: Launder contaminated clothing before use. Wash hands before eating, drinking, or smoking.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Proper grounding procedures to avoid static electricity should be followed. Keep locked up and out of the reach of children. Keep container tightly closed and in a well-ventilated place. Keep cool.

Incompatible Materials: Oxidizers.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Exposure Guidelines:

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl alcohol (67-63-0)	200 ppm	980 mg/m^3	Not available
2-Butoxyethanol (111-76-2)	20 ppm	240 mg/m^3	Not available

Appropriate Engineering Controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Individual Protection Measures

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Skin and Body Protection: Wear suitable protective clothing.

Eye/Face Protection: Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).

General Work/Hygienic Practices: Handle in accordance with good industrial hygiene and safety practice. Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless liquid

Odor: Alcohol-like

Odor threshold: Not determined

pH: 7.6

Melting point/freezing point: Not determined

Initial boiling point and boiling range: Not determined

Flash point: 30°C (86°F) TCC

Evaporation rate: Not determined

Flammability (solid, gas): Flammable

Upper/lower flammability or explosive limits: Not determined

Vapor pressure: Not determined

Vapor density: Not determined

Relative density: 0.97

Solubility(ies): Not determined

Partition coefficient (n-octanol/water): Not determined

Auto-ignition temperature: Not determined

Decomposition temperature: Not determined

Viscosity: Not determined

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions.

Chemical stability: Stable under recommended storage conditions. May form flammable/explosive vapor-air mixture.

Possibility of hazardous reactions: None under normal use.

Conditions to avoid: Heat. Incompatible materials. Sources of ignition.

Incompatible materials: Oxidizers.

Hazardous decomposition products: May include and are not limited to: oxides of carbon.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Likely Routes of Exposure: Inhalation, skin contact, eye contact, ingestion

Information Related to Physical, Chemical, and Toxicological Effects

See section 4 of this SDS.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity: **NTP:** No **IARC:** No **OSHA:** No

Numerical Measures of Toxicity

Product	
ATE (oral)	>2000 mg/kg, rat
ATE (dermal)	>2000 mg/kg, rabbit
ATE (inhalation)	>20 mg/l/4h

Component Information:

Chemical Name	**Oral LD50**	**Dermal LD50**	**Inhalation LC50**
Isopropyl alcohol (67-63-0)	4396 mg/kg (rat)	12800 mg/kg (rat)	72.6 mg/l/4h (rat)
2-Butoxyethanol (111-76-2)	470 mg/kg (rat)	Not available	450 ppm/4h (rat)

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: Not established

Persistence and degradability: Not established

Bioaccumulative potential: Not established

Mobility in soil: No additional information available

Other adverse effects: No additional information available.

SECTION 13 – DISPOSAL CONSIDERATIONS

See section 8 of this SDS for exposure controls and personal protection.

Dispose of the product and container in accordance with all applicable local, state, and federal regulations. The generation of waste should be avoided or minimized whenever possible. Handle empty containers with care because residual vapors are flammable.

SECTION 14 – TRANSPORT INFORMATION

Note: Classification changes based on quantity, packaging, and method of shipment. See current shipping paper for most up to date shipping information.

UN1987, Alcohols, n.o.s. (Isopropanol), 3, PG III

DOT (Ground): Limited quantity

IATA (Air): DO NOT SHIP- Required testing has not been completed

IMDG (Vessel): Limited quantity

SECTION 15 – REGULATORY INFORMATION

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
Harmful if inhaled or absorbed through skin.
Causes moderate eye irritation.
Avoid breathing vapors, and contact with eyes, skin, or clothing.
Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.
Remove contaminated clothing and wash clothing before reuse.
Do not use or store near heat or open flame.

All ingredients in this product are listed or are excluded from listing on the US Toxic Substances Act (TSCA) Chemical Substance Inventory.

SARA 313

This product contains chemicals which are subject to the reporting requirements of the Superfund Amendments and Reauthorization Act and Title 40 of the Code of Federal Regulations, Part 372. Chemicals: Isopropanol and Butoxyethanol.

SECTION 16 – OTHER INFORMATION

Issue Date: 01-Feb-2017

Revision Date: 01-Feb-2017

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designed and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet