Safety Data Sheet

Odorox® Hydroxyl Optics

HGI Industries Incorporated (HGI) Odorox® Hydroxyl Optics are exempted from the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) because they are "Articles." (*"Article" as defined in OSHA Standards 29 CFR 1910.1200(c)).* The following information is provided as a courtesy to our customers.

SECTION 1: Identification

Product name:	Odorox® Hydroxyl Optics
Manufacturer/Supplier Trade Name:	Odorox® Hydroxyl Optics /or/ Optics
Manufacturer Part Numbers:	OPT-XX-078, OPT-XX-176, OPT-XX-177, OPT-XX-354, OPT-XX-356,
Manufacturer Details:	HGI Industries Incorporated 2055 High Ridge Road Boynton Beach, Florida, USA www.hgiind.com /or/ www.odorox.com
Emergency Telephone Number:	(561) 735-3701 /or/ (877) 735-3701

SECTION 2: Hazards(s) Identification

GHS-US classification:	Not Classified
GHS Label Elements/Labeling:	Not Classified as a Hazardous Chemical
Other Hazards for Classification:	None
Unknown Acute Toxicity (GHS US):	Not Applicable

SECTION 3: Composition/Information on Ingredients:

Name	Product Identifier	%	GHS-US Classification
Odorox® Hydroxyl Optics	(see various MFG Part Numbers)	N/A	Not classified

SECTION 4: First-aid Measures:

THERE ARE NO KNOWN HEALTH HAZARDS FROM EXPOSURE TO OPTICS THAT ARE INTACT.

First-aid measures after Inhalation:	Adverse effects not expected from this product.
First-aid measures after Skin Contact:	Adverse effects not expected from this product.
First-aid measures after Eye Contact:	Adverse effects not expected from this product.
First-aid measures after Ingestion:	Do NOT induce vomiting. Adverse effects not expected from this product.

SECTION 5: Fire Fighting Measures:

Suitable Extinguishing Media:	Foam, Dry Powder, Carbon Dioxide, Water Spray, Sand
Specific Hazards Arising from Chemical:	No Additional Information Available
Specific Protective Equipment/Precautions:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting and chemical fire.
Protection during Firefighting:	Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental Release Measures:

THERE ARE NO KNOWN HEALTH HAZARDS FROM EXPOSURE TO OPTICS THAT ARE INTACT.

Precautions (Non-Emergency Personnel)	Evacuate unnecessary personnel
Precautions (Emergency Responders)	Equip cleanup crew with proper protection
Emergency Procedures:	Ventilate area

IF THE OPTIC IS BROKEN THE FOLLOWING HAZARDOUS MATERIALS MAY BE RELEASED:

Chemical Name	CAS Number	% by weight	Exposure Limits In Air (mg/m^3): ACGIH (TLV)	Exposure Limits In Air (mg/m^3): OSHA (PEL)
Quartz (Fused Silica)	60676-86-0	75-90%	0.1***	0.1***
Mercury*	7439-97-6	< 0.1%	0.025	0.1 (ceiling)
Tin	7440-31-5	< 0.1%	2.0	2.0
Argon	7440-37-1	< 0.1%	**	none
Neon	7440-01-9	< 0.1%	**	none
Xenon	7440-01-9	< 0.1%	**	none

NOTES:

* This chemical is subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

** The TLV for a simple asphyxiant is minimal atmospheric oxygen content of 18% by volume, at 1 atmospheric pressure.

*** When quartz tubing is heated to working temperatures, the silica vapors given off condense as amorphous silica. Amorphous silica has a TLV of 10 mg/m^3 and a PEL of 6 mg/m^3

SECTION 7: Handling and Storage:

Precautions for Safe Handling:	Wash hands and other exposed area with mild soap and water before eating, drinking or smoking and when leaving work
Storage Conditions:	None required
Incompatible Products:	None known
Incompatible Materials:	None known

SECTION 8: Exposure Controls/Personal Protection:

Control Parameters:	No additional information available
Appropriate Engineering Controls:	No additional information available
Personal Protective Equipment:	Protective Gloves
Eye Protection:	Chemical goggles or Safety Glasses
Respiratory Protection:	None required for intact Optics Use of appropriate NIOSH approved Respirator if Optics are Broken

SECTION 9: Physical and Chemical Properties:

Odor:	None
Odor Threshold:	No data available
pH	No data available
Water Solubility:	No data available
Melting Point:	No data available
Freezing Point:	No data available
Boiling Point:	No data available
Critical Temperature:	No data available
Critical Pressure:	No data available
Flash Point:	No data available
Relative Evaporation Rate:	No data available
Flammability (solid, gas)	Non-flammable
Density (@ 20 ˚C):	No data available
Explosive Properties:	No data available
Oxidizing Properties:	No data available
Thermal Stability:	No data available
Dissociation Constant:	No data available

Oxidation Reduction Potential:	No data available
Reactivity to Container Material:	No data available
Other Physical Property:	No data available
Reactivity:	No data available

SECTION 10: Stability and Reactivity:

Chemical Stability:	Stable under normal conditions
Possibility of Hazardous Reactions:	Not established
Conditions to Avoid:	Delicate Handling to avoid breakage of Optic
Incompatible Materials:	None known
Hazardous Decomposition Information:	Glass Particles and Mercury

SECTION 11: Toxicological Information:

THERE ARE NO KNOWN HEALTH HAZARDS FROM EXPOSURE TO OPTICS THAT ARE INTACT.

Likely Routes of Exposure:	None for intact optics
Skin Corrosion/Irritation:	None for intact optics
Serious Eye Damage/Irritation:	None for intact optics
Respiratory or Skin Sensitization:	None for intact optics
Germ Cell Mutagenicity:	Not classified
Carcinogenicity:	Not classified (Based on available data, the classification criteria are not met)
Reproductive Toxicity:	Not classified
Specific Target Organ Toxicity:	Not classified (for Single or Repeated Exposure)
Aspiration Hazard:	Not classified

SECTION 12: Ecological Information:

Potential Adverse Human Health Effects:	Not classified (Based on available data, the classification criteria are not met)
Toxicity:	No additional information available
Persistence and Degradability:	Not established
Bio-accumulative Potential:	Not established
Mobility in Soil:	No additional information available
Other Adverse Effects:	No other effects known

SECTION 13: Disposal Considerations:

Waste Disposal Recommendations:	If optics are broken, ventilate area where breakage occurred. Clean up with mercury vacuum cleaner or other suitable means that avoid dust and mercury vapor generation. Take usual precautions for collection of broken glass. Clean up requires special care due to mercury droplet proliferation. Place materials in closed containers to avoid generating dust. It is the responsibility of the generator to ensure proper classification of waste products. To that end, Toxicity Characteristic Leaching Procedure (TCLP) tests should be conducted on all waste products to determine the ultimate disposition in accordance with all applicable federal, state, and local regulations.

SECTION 14: Transport Information:

Department of Transportation (DOT):	In accordance with DOT – Not Regulated

SECTION 15: Regulatory Information:

US Federal Regulations:	All components of this product are listed or excluded from listing, on the United States Environment Protection Agency Toxic Substance Control Act (TSCA) inventory.
Canada:	No additional information available
EU-Regulations:	No additional information available
National Regulations:	No additional information available
California Proposition 65:	This product does contains substances known to the state of California that may cause cancer, developmental and/or reproductive harm.

SECTION 16: Other Information:

Revision Date:	04/29/2020
Other Information:	THERE ARE NO KNOWN HEALTH HAZARDS FROM OPTICS THAT ARE INTACT. No adverse effects are expected from occasional exposure to broken optics. As a matter of good practice, avoid prolonged or frequent exposure to broken optics unless there is adequate ventilation. The major hazard from broken optics is the possibility of sustaining glass cuts.

EFFECTS OF OVEREXPOSURE TO BROKEN OPTICS BY INHALATION, INGESTION, OR CONTACT WITH SKIN OR EYE.

Mercury - Exposure to high concentrations of vapors for brief periods can cause acute symptoms such as pneumonitis, chest pains, and shortness of breath, coughing, gingivitis, salivation, and possibly stomatitis. Chronic exposure may cause tremors and neuropsychiatric problems. May cause redness and irritation as a result of contact with skin and/or eyes.

Quartz (fused silica) - Exposure to crystalline silica dust may cause scarring of the lungs (Silicosis), resulting in shortness of breath and coughing.

Inert gases - Inert gases such as Argon, Neon, and Xenon can cause asphyxia by displacing the ambient oxygen. Some symptoms of asphyxia are headache and dizziness.

Tin Solder - Ingestion or inhalation of dust or fumes must be avoided. Tin is not regarded as toxic but excessive exposure can cause fever, nausea, stomach cramps or diarrhea.

SPECIAL HANDLING INFORMATION - FOR BROKEN OPTICS:

Ventilation: Use adequate general and local exhaust ventilation to maintain exposure levels below the PEL or TLV limits. If such ventilation is unavailable, use respirators as specified below.

Respiratory Protection: Use appropriate NIOSH approved respirator if airborne dust concentrations exceed the PEL or TLV limits. All appropriate requirements set forth in 29 CFR 1910.134 should be met.

Eye Protection - OSHA specified safety glasses, goggles or face shield are recommended if optics are being broken.

Hygienic Practices - After handling broken optics, wash thoroughly before eating, smoking, or using toilet facilities.

ALTHOUGH HGI INDUSTRIES INCORPORATED ATTEMPTS TO PROVIDE CURRENT AND ACCURATE INFORMATION HEREIN, IT MAKES NO REPRESENTATIONS REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION AND ASSUMES NO LIABILITY FOR ANY LOSS, DAMAGE OR INJURY OF ANY KIND WHICH MAY RESULT FROM, OR ARISE OUT OF, THE USE OF/OR RELIANCE ON THE INFORMATION BY ANY PERSON.