SAFETY DATA SHEET

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Revision Number 1

NGHS / English



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1. IDENTIFICATION

Product identifier		
Product Name	White Single U-shaped Bulb	
Other means of identification		
Product Code(s)	1435376	
Recommended use of the chemica	and restrictions on use	
Recommended Use	Lights, Fluorescent	
Restrictions on use	No information available	
Details of the supplier of the safety	data sheet	
Supplier Identification	Oplier Identification Dynamic Solutions Worldwide LLC	
Address	12247 West Fairview Avenue Milwaukee Wisconsin 53226 US	
Telephone	Phone:877-403-8727	
E-mail	todd.koehler@dsw-llc.com	
Emergency telephone number		
Company Emergency Phone Number	877-403-8727	
	2. HAZARDS IDENTIFICATION	

Classification

Not classified.

The product contains no substances which at their given concentration, are considered to be hazardous to health



Appearance White

Physical state Solid

Odor Neutral

GHS Label elements, including precautionary statements

Hazard statements Not classified.

Other information

Causes mild skin irritation. Very toxic to aquatic life with long lasting effects.

Unknown acute toxicity98.584333 % of the mixture consists of ingredient(s) of unknown toxicity90.758243 % of the mixture consists of ingredient(s) of unknown acute oral toxicity98.584333 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity98.584333 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)98.584333 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)98.584333 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

<u>Mixture</u>

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Silica, fused	60676-86-0	73.91304	-	-
Calcium carbonate	471-34-1	7.826087	-	-
Aluminum	7429-90-5	6.956522	-	-
Yttrium oxide (Y2O3)	1314-36-9	1.102111	-	-
Copper	7440-50-8	0.434783	-	-

4. FIRST AID MEASURES

First aid measures

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed



Symptoms

No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	CAUTION: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	No information available.
Hazardous Combustion Products	Carbon oxides.
Explosion Data Sensitivity to Mechanical Impac Sensitivity to Static Discharge	t None. None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with eyes.
Methods and material for containme	ent and cleaning up_
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters



Exposure Limits

Chemical name		ACGIH T	LV	0	SHA PEL		NIOSH IDLH
Silica, fused		-			TWA: 0.1 mg/m ³		
60676-86-0					birable dust		
					SiO2) mg/m ³ TWA		
					A: 20 mppcf		
Calcium carbonate		-			A: 15 mg/m ³		5 mg/m ³ respirable dust
471-34-1					A: 5 mg/m ³		A: 10 mg/m ³ total dust
					TWA: 15 mg/m ³		
) TWA: 5 mg/m ³		
Aluminum		TWA: 1 mg/m ³ I			mg/m ³ total dust		A: 10 mg/m ³ total dust
7429-90-5		particulate n	natter		ng/m ³ respirable	I I VVA:	5 mg/m ³ respirable dust
					fraction		TWA: 5 mg/m ³ Al
				(vacated) I v	VA: 15 mg/m ³ total dust		
				(vacated)) TWA: 5 mg/m ³		
					fraction (vacated)		
					g/m ³ Al Aluminum		
Yttrium oxide (Y2O3)	TWA: 1 mg/	/m ³ Y	100.0119	-		IDLH: 500 mg/m ³ Y
1314-36-9	,	1 w// (. 1 mg/					TWA: 1 mg/m ³ Y
Copper		TWA: 0.2 mg/m ³ ft	Ime TWA: 1	TWA: 0	.1 mg/m ³ fume		H: 100 mg/m ³ dust, fume
7440-50-8		mg/m ³ Cu dust			/m ³ dust and mist	and	nist IDLH: 100 mg/m ³ Cu
					WA: 0.1 mg/m ³ Cu		dust and mist
					, fume, mist	TWA	: 1 mg/m ³ dust and mist
						TWA:	0.1 mg/m ³ fume TWA: 1
						m	g/m ³ Cu dust and mist
Chemical name		Alberta	British C	Columbia	Ontario TWAE	V	Quebec
Silica, fused					TWA: 0.1 mg/r	n ³	TWA: 0.1 mg/m ³
60676-86-0							
Calcium carbonate	Т	WA: 10 mg/m ³					TWA: 10 mg/m ³
471-34-1							
Aluminum	TWA	: 10 mg/m³ TWA: 5	TWA: 1.	0 mg/m³	TWA: 1 mg/m	3	TWA: 10 mg/m ³ TWA: 5
7429-90-5		mg/m³					mg/m ³
Yttrium oxide (Y2O3) 1314-36-9	-	TWA: 1 mg/m ³	TWA: 1	mg/m ³	TWA: 1 mg/m	3	TWA: 1 mg/m ³
Copper	Т	WA: 0.2 mg/m ³	TWA: 1	mg/m ³	TWA: 0.2 mg/r	n ³	TWA: 0.2 mg/m ³
7440-50-8	-	TWA: 1 mg/m ³	TWA: 0.	2 mg/m ³	TWA: 1 mg/m	3	TWA: 1 mg/m ³

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering controls	Showers
	Eyewash stations
	Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	No special protective equipment required.
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Skin and body protection No special protective equipment required.

Respiratory protectionNo protective equipment is needed under normal use conditions. If exposure limits are
exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.



Developing Chemical Dreportion

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties	_	
Physical state	Solid	
Appearance	White	
Odor	Neutral	
Color	No information available	
Odor Threshold	Not applicable	
Property	<u>Values</u>	Remarks Method
рН	No data available	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water Solubility	No information available	
Solubility(ies)	No data available	None known
Partition coefficient: n-octanol/wa	terNot Applicable	
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Other Information		
Explosive properties	No information available	
Oxidizing properties	No information available	
	No information available	
Softening Point	No information available	
Molecular Weight	No information available	
VOC Content (%)	No information available	
Liquid Density	No information available	

No information available

No information available

No information available

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.

Hazardous Decomposition Products Carbon oxides.



. Bulk Density

Particle Size

Particle Size Distribution

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	
Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.
Information on toxicological effects	<u>.</u>
Symptoms	No information available.

Numerical measures of toxicity

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document .ATEmix (oral)7,617.00 mg/kg

Unknown acute toxicity98.584333 % of the mixture consists of ingredient(s) of unknown toxicity90.758243 % of the mixture consists of ingredient(s) of unknown acute oral toxicity98.584333 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity98.584333 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)98.584333 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)98.584333 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)98.584333 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical	name	Oral LD50	Dermal LD50	Inhalation LC50
Calcium ca	rbonate	= 6450 mg/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Silica, fused	-	Group 3	-	-
60676-86-0				

Legend

IARC (International Agency for Research on Cancer) Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity

No information available.



STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

	T		+ • • •	
Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to	Daphnia Magna (Water
			Microorganisms	Flea)
Copper	96h EC50: 0.031 - 0.054	96h LC50: 0.0068 -	-	48h EC50: = 0.03 mg/L
	mg/L	0.0156 mg/L (Pimephales		
	(Pseudokirchneriella	promelas) 96h LC50: =		
	subcapitata) 72h EC50:	1.25 mg/L (Lepomis		
	0.0426 - 0.0535 mg/L	macrochirus) 96h LC50:		
	(Pseudokirchneriella	= 0.052 mg/L		
	subcapitata)	(Oncorhynchus mykiss)		
		96h LC50: = 0.2 mg/L		
		(Pimephales promelas)		
		96h LC50: < 0.3 mg/L		
		(Pimephales promelas)		
		96h LC50: = 0.112 mg/L		
		(Poecilia reticulata) 96h		
		LC50: = 0.3 mg/L		
		(Cyprinus carpio) 96h		
		LC50: = 0.8 mg/L		
		(Cyprinus carpio)		
	1			1
Persistence and Degrad	ability No information	n availabla		
reisistence and Degrad				
Bioaccumulation	There is no d	lata for this product.		
Bioaccumulation				
Mobility	No informatio			
Mobility	No information available.			

No information available. Other adverse effects

13. DISPOSAL CONSIDERATIONS

Waste treatment methods	
Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.
US EPA Waste Number	D009
California Waste Codes	M003

California Waste Codes

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste



Aluminum 7429-90-5	Ignitable powder
Copper 7440-50-8	Toxic

14. TRANSPORT INFORMATION

DOT Proper Shipping Name Hazard Class	NOT REGULATED NON-REGULATED N/A
TDG	Not regulated
MEX	Not regulated
ICAO	Not regulated
IATA Proper Shipping Name Hazard Class	Not regulated NON REGULATED N/A
IMDG/IMO Hazard Class	Not regulated N/A
RID	Not regulated
ADR	Not regulated
ADN	Not regulated

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

Ozone-depleting substances (ODS) Not applicable

Persistent Organic Pollutants Not applicable

Export Notification requirements

International Inventories	
TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AICS	Contact supplier for inventory compliance status.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances



AICS - Australian Inventory of Chemical Substances

US Federal Regulations

<u>SARA 313</u>

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Aluminum - 7429-90-5	7429-90-5	6.956522	1.0
Copper - 7440-50-8	7440-50-8	0.434783	1.0

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper 7440-50-8		Х	Х	

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Copper 7440-50-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Mercury - 7439-97-6	Developmental

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusett	Pennsylvania	Rhode Island	Illinois
		S			
Silica, fused 60676-86-0	Х	Х			
Calcium carbonate 471-34-1	Х				
Aluminum 7429-90-5	Х	Х	Х	Х	
Copper 7440-50-8	Х	Х	Х	Х	Х



16. OTHER INFORMATION							
<u>NFPA</u>	Health hazards 1	Flammability 0	Instability 0	Physical and Chemical Properties -			
<u>HMIS</u>	Health hazards 1	Flammability 0	Physical hazards 0	Personal Protection X			
Prepared By	Product S 23 British Latham, I 1-800-57						
Issuing Date	13-Feb-2018						
Revision Date	09-Feb-2018						
Revision Note	No information available						

Disclaimer

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End of Safety Data Sheet

