

Safety Data Sheet



Waste stream: Fluorescent tubes
Version: 0

Revision date: 23/03/2016
Report Reference:KSIA001

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SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Waste Stream Fluorescent tubes		
Waste generation process Used Lighting		
Restrictions on use Not to be reused can be re-cycled by an approved and licenced facility.		
Generators Name King Shaka International Airport		
Street address King Shaka Dr La Mercy		
City Durban	Province KwaZulu Natal	
Postal Code 4405	Emergency Telephone ACSA Help Desk : 032-436-6758	
Fax	Email Nontokozi.Nzama@airports.co.za	
Date SDS prepared 23 March 2016	SDS prepared by Dolphin Coast Environmental Laboratory Solutions	Phone number/ Email Address 087 353 9750 / info@dcels.co.za

SECTION 2 HAZARDS IDENTIFICATION

Human Health	Acute Toxicity – Oral (Category 4) Acute toxicity – Inhalation (Category 4) reproduction(Category 1) Carcinogen(Category 2) Specific target organ toxicity Repeated exposure(Category 1)		
Environment	Chronic hazard to the aquatic environment (Category 1)		
Physical	None identified		
Signal words	DANGER		
Hazard Statements	<u>PHYSICAL</u> None identified	<u>HEALTH</u> H302 – Harmful if swallowed. H333 – May be harmful if inhaled. H351-Suspected of causing cancer H360- Suspected of damaging fertility or the unborn child H372- Causes damage to organs through prolonged or repeated exposure	<u>ENVIRONMENTAL</u> H410- very toxic to aquatic life with long lasting results

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Precautionary statements	<u>PREVENTION</u>	<u>RESPONSE</u>	<u>STORAGE/DISPOSAL</u>
	<p>P202: Do not handle until all safety precautions have been read and understood.</p> <p>P260: Do not breathe dust, fume, gas, mist, vapours and spray.</p>	<p>P362 : Take off contaminated clothing and wash before reuse</p> <p>P308 + P313: IF exposed or concerned: Get medical advice/attention.</p> <p>P314: Get medical advice/attention if you feel unwell.</p>	<p>P501:Dispose of contents/container in accordance with local, regional, national and international regulations</p>

Pictograms:



SECTION 3 COMPOSITION/INFORMATION ON INGREDIENT

Substance	Mixture	x

The contaminants are listed below:

Hazardous ingredients	Concentration (%)	CAS Number
Mercury	0.002-0.02	7439-97-6
Lead oxide	0.2-2.0	1317-36-8
Aluminium oxide	0-0.20	1344-28-1
Soda lime (Glass)	75-95	None identified

Please note that depending on the type of fluorescent tubes, it might contain other hazardous ingredients as dust in minute quantities namely:

- Phosphor
- Fluoride
- Manganese as dust
- Tin
- Antimony
- Calcium
- Antimony
- Zinc
- Cerium

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SECTION 4 FIRST AID MEASURES

Skin contact: Take off all contaminated clothing, rinse cautiously with water for several minutes. If skin irritation or rash occurs seek medical attention. Apply normal first aid for glass cuts if such should occur through lamp breakage.
Eye contact Rinse cautiously with water for several minutes; remove contact lenses, if present. If eye irritation persists: Get medical advice/attention.
Inhalation If discomfort, irritation or pulmonary involvements develop remove person from source of exposure and seek medical attention.
Ingestion In the unlikely event of ingestion of hazardous ingredient in large quantities, seek medical attention
Most important symptoms and effects (acute and delayed): Symptoms: No specific symptoms Effects: None identified
Protection of First Aiders and notes for doctor: This product contains Mercury - treat symptomatically. Persons with kidney disease, chronic respiratory disease, liver disease, or skin disease may be at increased risk from exposure to this substance. The exposed person may need to be kept under medical surveillance for 48Hours.

Please note: Only applicable to a broken lamp

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing media Use extinguishing media appropriate for the surrounding area.	Unsuitable extinguishing media Do not use water jet
Hazardous combustion products Keep away from heat/sparks/open flames/hot surfaces. If subjected to heat, the glass, and plastic (if present) may crack or melt and may emit toxic	
Precautions for Fire-fighters Use a self-contained breathing apparatus to prevent inhalation of dust and/or fumes that may be generated from broken lamps during fire fighting activities.	

Please Note: Only applicable to a broken lamp

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precaution After handling broken lamps: <ul style="list-style-type: none">• Wash hands thoroughly after handling glass and chemicals.• Appropriate measures shall be used to remove potentially contaminated clothing and shall be washed prior to re-use. Contaminated work clothing should not be allowed out of the workplace.• Wash hands before eating, drinking, smoking and applying cosmetics.
Protective Equipment See section 8
Emergency Procedures For non- emergency personnel; eliminate sources of ignition and ventilate the area. Avoid breathing in the vapour/mist.
Environmental Precautions If bulb cracks/breaks do not allow contents to enter drains or water courses. Do not discharge into the subsoil/soil. If the product contaminates the above mentioned areas inform the appropriate authorities in accordance with regulations.

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<p>Methods and materials for containment Spill Kits – see below for alternative clean-up methods</p>
<p>Methods and materials for clean-up, neutralization and recovery Contain and collect spillage with non-combustible, absorbent material e.g. sand, vermiculite, and place in tightly sealed container for disposal as per the local regulations. If a lamp breaks it must be cleaned up using appropriately :</p> <ul style="list-style-type: none"> • Ventilate area • Clean up using and special mercury vacuum cleaner (not a normal vacuum cleaner) to avoid dust generation. • Take precaution when collecting the glass pieces in order to avoid injury. • Clean-up requires special care due to the mercury droplets. • Place materials in closed containers to avoid dust generation.

SECTION 7 HANDLING AND STORAGE

<p>Precautions for safe handling If spilled cleaned up, containers must be tightly closed. Handling spilled material shall be in accordance with good industrial hygiene and safety practice. When handling the above mentioned contaminants don't eat, drink, smoke or apply cosmetics without washing your hands</p>
<p>Conditions for safe storage Ensure adequate ventilation. Lamps must be stored in a manner as to avoid breakage until removal by an appointed service provider.</p>

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

<p>Permissible concentrations Date: No data available Source: No data available Recommended test method: No data available</p>	<p>OEL No data available</p>	<p>Biological limits No data available</p>
<p>Engineering controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours/dust below their respective threshold limit value (if applicable). Ensure that eyewash stations and safety showers are proximal to the work-station location</p>		
<p>PPE(not required if lamp intact): Respiratory Protection: respiratory protection is not required, however if exposed then personnel should use NIOSH approved respirators'. Hand Protection: Chemical Resistant gloves. Eye Protection: Safety spectacles or safety goggles. Skin and Body Protection: Gloves and overalls</p>		
<p>Comments:</p>		

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance Solid	Odour None	pH (concentration) No data available
Melting point No data available	Freezing point No data available	Boiling point, initial boiling point, boiling range No data available
Flashpoint No data available	Upper/lower flammability/explosive limits No data available	Vapour pressure No data available
Vapour density No data available	Density/relative density No data available	Solubility No data available
n-octanol/water partition coefficient No data available	Auto-ignition temperature No data available	Decomposition temperature No data available
Odour threshold No data available	Evaporation rate No data available	Flammability None flammable
Viscosity No data available	Radioactivity No data available	

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If no, under which conditions None identified
Incompatibility with other substances Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If yes, which ones? None Identified
Anticipated hazardous decomposition products If subjected to heat, the glass, and plastic (if present) may crack or melt and may emit toxic fumes.	

SECTION 11 TOXICOLOGICAL INFORMATION

Component 1 – Mercury	
Acute toxicity Acute Toxicity – Inhalation (Category 2)	Skin irritation/corrosion No data available
Eye damage/irritation No data available	Respiratory or skin sensitization No data available
Reproductive cell mutagenicity No data available	Carcinogenicity No data available
Reproductive toxicity Toxic to reproduction category 1B Specific effect: May damage the unborn child	Specific target organ toxicity – single exposure No data available

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<p>Specific target organ toxicity – repeated exposure STOT- Category 1 Affected organ: not identified Route of exposure: Not identified</p>	<p>Aspiration hazard No data available</p>
Component 2 – Lead oxide	
<p>Acute toxicity Acute Toxicity – Oral (Category 4) Acute Toxicity – Inhalation (Category 4)</p>	<p>Skin irritation/corrosion No data available</p>
<p>Eye damage/irritation No data available</p>	<p>Respiratory or skin sensitisation No data available</p>
<p>Reproductive cell mutagenicity No data available</p>	<p>Carcinogenicity Carcinogen category 2 Affected organ: Not Identified Route of exposure: Oral</p>
<p>Reproductive toxicity Toxic to reproduction category 1A Specific effect: May damage the unborn child. Suspected of damaging fertility.</p>	<p>Specific target organ toxicity – single exposure No data available</p>
<p>Specific target organ toxicity – repeated exposure STOT- Category 1 Affected organ: not identified Route of exposure: Not identified</p>	<p>Aspiration hazard No data available</p>
Component 3 – Aluminium Oxide	
<p>Acute toxicity No data available</p>	<p>Skin irritation/corrosion No data available</p>
<p>Eye damage/irritation No data available</p>	<p>Respiratory or skin sensitisation No data available</p>
<p>Reproductive cell mutagenicity No data available</p>	<p>Carcinogenicity No data available</p>
<p>Reproductive toxicity No data available</p>	<p>Specific target organ toxicity – single exposure No data available</p>
<p>Specific target organ toxicity – repeated exposure No data available</p>	<p>Aspiration hazard No data available</p>

SECTION 12 ECOLOGICAL INFORMATION

Fluorescent Tubes	
<p>Aquatic toxicity Chronic hazard to the aquatic environment (Category 1)</p>	<p>Possible environmental impact No data available</p>
<p>Persistence and biodegradability No data available</p>	<p>Bio-accumulative potential Bio-accumulates and largest exposure risk is from the fish</p>
<p>Mobility in soil No data available</p>	<p>Ecological Limit Values No data available</p>

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SECTION 13 DISPOSAL CONSIDERATIONS

Waste re-cycling methods Waste can be re-cycled by an appointed facility.
Waste Disposal options Waste shall be disposed of according to all applicable regulations. Records of all waste been disposed must be retained and a safe disposal certificate, where applicable, must also be received from the waste disposal facility.
Any other information Dispose waste at a registered Landfill site in accordance with national and local regulations. Do not dump into any sewers, on the ground, or into any body of water

SECTION 14 TRANSPORT INFORMATION

UN number 2809	UN proper shipping name Mercury or Mercury contained in manufactured articles	UN classification 8
Packaging group II	Marine Pollutant Yes	Transport in bulk according to MARPOL Not Available
Special Precautions CAUTION should be taken during transportation to avoid breakage/spillage/leaks.		

SECTION 15 REGULATORY INFORMATION

Labelling Requirements The image shows two GHS hazard pictograms side-by-side. The first is a black diamond with a white border, containing a hand being corroded by a liquid, with the word 'CORROSIVE' and the hazard number '8' below it. The second is a red diamond with a white border, containing a dead tree and a dead fish, representing an environmental hazard.

SECTION 16 OTHER INFORMATION

<u>Risk Phrases that might apply to the above product:</u> R22 Harmful if swallowed R20 Harmful by inhalation R45 May cause cancer R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
<u>REFERENCES:</u> 1. http://echa.europa.eu/ 2. SANS 10243 (2008) Globally Harmonized System of classification and labelling of chemicals 3. Understanding the globally harmonized system of classification and labelling of chemicals(GHS) – June 2010 4. Globally harmonized system of classification and labelling of chemicals(GHS) – 2007 5. Globally harmonized system of classification and labelling of chemicals(GHS) – 2009
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