

Issue Date: 05/08/2009
 Last Revision Date: 11/08/2023
 Superseded Date: 07/05/2018
 Version Number: 04

SAFETY DATA SHEET

Product Code: LTPUNIPH100

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SECTION 1 PRODUCT IDENTIFICATION

Product Name: Livingstone Universal pH Indicator Strips Litmus Paper
Product Uses: Used for measuring the pH of a solution

SECTION 2 HAZARD IDENTIFICATION

Not classified as hazardous according to NOHSC/ASCC Criteria
Not classified as dangerous goods by the criteria of the ADG Code

Emergency Overview

This material when properly handled according to good working and hygienic practices is not dangerous to human health and the environment at ambient temperature.

General Precautionary Measures

Code	General Precautionary Statements	Hazard Class	Hazard Category	Conditions for use
P101	If medical advice is needed, have product container or label at hand.	As appropriate	N/A	Consumer products
P102	Keep out of reach of children.	As appropriate	N/A	Consumer products
P103	Read label before use.	As appropriate	N/A	Consumer products

Inhalation: Unlikely to happen due to product physical appearance but product dust may cause irritation and allergic reaction.
Eye Contact: Product dust may cause eye irritation.
Skin Contact: Very unusual to happen but product dust may cause skin irritation for sensitive individual.
Ingestion: Ingestion of harmful amount of this product as distributed may cause nausea or vomiting and can cause damage to digestive system.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Chemical Formula	CAS No.
Cellulose	$(C_6H_{10}O_5)_n$	9004-34-6
Cresol Red	$C_{21}H_{17}NaO_5S$	1733-12-6
Bromocresol Green	$C_{21}H_{14}Br_4O_5S$	76-60-8
Bromothymol Blue	$C_{27}H_{28}Br_2O_5S$	76-59-5
Alizarin Yellow R Sodium salt	$C_{13}H_8N_3NaO_5$	1718-34-9

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SECTION 4 FIRST AID MEASURES

Inhalation: Evacuate exposed person to fresh air. If breathing is difficult or has stopped, administer artificial respiration or oxygen as indicated. Seek medical attention promptly.

Eye Contact: Flush eyes with clean water. If irritation continues, seek immediate medical attention.

Skin Contact: Remove product immediately, wash affected area thoroughly with mild soap and water. If irritation, inflammation or other symptoms develop, seek medical attention.

Ingestion: Attempt removal of product to clear airway. Do not induce vomiting and seek immediate medical advice.

SECTION 5 FIRE FIGHTING MEASURES

Suitable Extinguishing Equipment: Use dry chemical powder, water spray, fog or foam but not water jet on the in case of fire but dry chemical powder fire extinguisher is more appropriate. Must also use extinguishing media most appropriate for the surrounding fire.

Fire & Explosion Hazard: Do not present fire or explosion hazards under normal conditions but product is combustible when ignited. Product may produce toxic fumes, carbon monoxide, carbon dioxide and etc. when burning.

Special Protective Equipment: Fire fighters should wear a self contained breathing apparatus (SCBA) which meets appropriate standards operated in positive pressure mode, and full protective equipment, including full bunker gear.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Recycling of the product is strongly encouraged. However, if recycling is not possible, disposed in an appropriately permitted waste landfill, or disposed by other methods in accordance with local, state, and federal regulations.

Spill/Leak Procedures: Spillage/Leakage is not applicable for products in solid state. Collect material using appropriate tools to put solid in suitable, labelled containers. Finish cleaning by spreading water on the contaminated surface. Recover or dispose off waste in accordance with federal, state, and local regulations. Do not release into sewers or waterways.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120) and all other pertinent state and federal requirements.

Disposal: Follow applicable federal, state, and local regulations. Recycle if possible.

SECTION 7 HANDLING AND STORAGE

Safe Handling: Handle the product in accordance with directions for use. Do not eat, drink and smoke in working area. Wash hand before and after handling. Remove contaminated clothing and protective equipment before entering eating areas.

Storage Conditions: Store in a cool and dry place. Keep out of reach of children. Keep protected from sunlight, acids and alkali, strong oxidizers and bases, fire/heat sources, electrical wirings/sources and other incompatible materials.

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SECTION 8**EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Limits**

No known data available.

Engineering Controls

Use controls as appropriate to minimize exposure during handling operations. Use lifting and work devices, e.g., crane, hoist, etc., within rated capacities and in accordance with manufacturer's instructions when handling these products.

- (1) Evaluate potential employee exposure.
- (2) Maintain surfaces free as practical of accumulated material.
- (3) Use protective clothing as specified by an industrial hygienist or safety professional where exposure levels may be excessive.
- (4) Do not smoke in work area.
- (5) Wash hands before eating, drinking or smoking and after handling.
- (6) Change contaminated clothing before leaving work premises.

Ventilation

Provide general or local exhaust ventilation systems to minimize airborne concentrations. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Skin and Eye Protection

Use protective clothing, gloves and safety glasses to prevent skin and eye contact. Use safety glasses or goggles and protective gloves as required for handling operations.

SECTION 9**PHYSICAL/CHEMICAL PROPERTIES**

Appearance and Odour:	Solid and odorless
Color:	Varies from aquamarine blue, light green, grass green or orange
pH:	Not applicable
Melting Point/Freezing Point:	No data available.
Boiling Point:	Not applicable.
Flash Point:	Not applicable.
Evaporation Rate:	Not applicable
Flammability:	Non-flammable but combustible
Vapor Pressure:	Not Applicable
Vapor Density:	Not Applicable
Relative Density:	No data available
Solubility in Water:	Insoluble
Auto Ignition:	No data available.

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SECTION 10 STABILITY AND REACTIVITY

Stability:	Product is stable under normal storage and handling conditions.
Polymerization:	Hazardous polymerization cannot occur.
Chemical Incompatibilities:	Will react with strong acids, oxidizers, alkali and bases.
Conditions to Avoid:	Sunlight, acids and alkali, strong oxidizers and bases, fire/heat sources, electrical wirings/sources and other incompatible materials.
Hazardous Decomposition:	Product may produce toxic fumes, oxides of sulphur, carbon monoxide, carbon dioxide and etc. when burning.

SECTION 11 TOXICOLOGICAL INFORMATION

Potential Health Effects

Product is slightly hazardous in case of ingestion and inhalation.

Acute Effects

No known adverse health effects for this product.

Chronic Effects

The substance is toxic to lungs and mucous membranes.

Carcinogenicity

The International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), and OSHA do not list this product as carcinogen.

Medical Conditions Aggravated by Long-Term Exposure

No LC50 or LD50 has been established for the mixture as a whole.

Mutagenicity, Teratogenicity

No data available.

SECTION 12 ECOLOGICAL INFORMATION

This product in its usual form does not pose an ecological hazard.

Ecotoxicity:	No data available.
Environmental Degradation:	Product is biodegradable.

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SECTION 13 DISPOSAL CONSIDERATIONS

Recycling of the product is strongly encouraged. However, if recycling is not possible, the product and its packaging must be disposed of in accordance with the local and national regulations.

SECTION 14 TRANSPORT INFORMATION

This product is not classified as dangerous good under transport regulations.

UN No: N/A

DG Class: N/A

Packaging Group: N/A

Hazchem Code: N/A

SECTION 15 REGULATORY INFORMATION

No other information available.

SECTION 16 OTHER INFORMATION

Reason for Revision: To bring to date

END OF SDS