LUMINULTRA™

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Innovative Biological Monitoring Technologies
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MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification
Product Name: UltraLyse30^{21}
Product Number: UL30^{21}-## (Where ## Represents Lot Number)
Intended Use: Extraction Agent
CAS Number: Blend
Date of MSDS Preparation: October 1, 2009

Company Identification
LuminUltra Technologies Ltd.
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King Tower, Suite 630
Fredericton, New Brunswick
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+1-506-459-8777 (For product information)
+1-506-459-8777 (For emergencies)

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Component Listing

Chemical Name	Amount	CAS Number
Water	60 – 100 % (w/w)	7732-18-5
Trisodium Phosphate	1 – 5 % (w/w)	7601-54-9
Sodium Hydroxide	0.1 – 1.0% (w/w)	1310-73-2

This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Exposure Guidelines
Sodium Hydroxide
OSHA PEL: 2 mg/m^3
OSHA Ceiling Limit: 2 mg/m^3

SECTION 3 – HAZARDS IDENTIFICATION

Emergency Overview
CAUTION - Prolonged or repeated contact may cause skin or eye irritation. The health hazards of this product should be low under normal industrial and commercial uses.

Eye
Can cause eye irritation or burns.

Skin
May cause skin irritation.

Inhalation
Avoid breathing vapors or mists.

Ingestion
May cause moderate to marked irritation and possibly burns of the mouth, throat, esophagus and stomach.

Carcinogenicity Information
No known cancer hazards.

SECTION 4 – FIRST AID MEASURES

Eye Contact First Aid:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

Skin Contact First Aid
Wash affected area immediately with large amounts of soap and water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists.

Inhalation First Aid
Although this product is not known to cause respiratory problems, if breathing is difficult, remove to fresh air and provide oxygen. Get medical attention if cough or other symptoms develop.

Ingestion First Aid
Ingestion is not considered a potential route of exposure. If swallowed, immediately give 2 glasses of water. Contact a physician.

Notes to Physician
All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Flammable Properties
Non combustible material.

PMCC Flash Point: None
Autoignition Temperature: None

Flammable Limits in Air
LEL: None
UEL: None

Hazardous Combustion Products
None

Extinguishing Media
Use extinguishing media appropriate to surrounding environment.

Fire & Explosion Hazards
No known unusual hazards in a fire/explosion situation.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Initial Containment
Contain spilled material. Wipe away excess with an inert absorbent material.

Small Spills Procedure
Wipe away excess with an inert absorbent material.

Containment Technique
N/A.

Evacuation Procedures
N/A.

SECTION 7 – HANDLING AND STORAGE

Handling (Personnel)
Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Avoid prolonged contact with skin or eyes. Wash hands thoroughly after handling.

Storage
Keep container tightly closed when not in use and store at 20°C.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls
Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this material should be equipped with an eyewash facility.

Recommended Personal Protective Equipment:
Eye Protection: Chemical goggles are recommended to avoid contact with eyes.
Skin Protection: Wear protective gloves to minimize skin contamination.
Inhalation Protection: N/A

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Properties
Appearance: Clear, colorless.
Physical State: Liquid.
Odor: Alkaline.
pH: 10-14
Vapor Pressure: As per water.
Specific Gravity: ~ 1.0 (Water).
Boiling Point: ~ 100°C (Water).
Melting Point: ~ 0°C (Water).
VOC Content: N/A.
Water Solubility: Miscible.

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability
Stable when stored under proper conditions.

Polymerization
Hazardous polymerization will not occur.

Incompatibility with Other Materials
Incompatible or can react with acids.

SECTION 11 – TOXIXOLOGICAL INFORMATION

No information available.

SECTION 12 – ECOLOGICAL INFORMATION

No information available.

SECTION 13 – DISPOSAL CONSIDERATIONS

Recommended Technique(s) For Disposal
Neutralize and dilute small quantities with water, and dispose down drain.

EPA Hazardous Waste
Yes.

D002
Corrosivity.

Empty Containers
Rinse three times with water and dispose as normal trash.

SECTION 14 – TRANSPORT INFORMATION

Product Label
Extraction Tube (UltraLyse 30^{21})

D.O.T. Shipping Name:
Not regulated in package sizes less than 30 liters.

SECTION 15 – REGULATORY INFORMATION

SARA 311 Categories:
Immediate (Acute) Health Effects: Yes
Delayed (Chronic) Health Effects: No
Fire Hazard: No
Sudden Release Of Pressure Hazard: No
Reactivity Hazard: No

Regulatory Lists Searched

01 - SARA 313	02 - SARA 302/304
03 - ACGIH TWA	04 - ACGIH Calc TLV
05 - CANADIAN WHMIS	06 - CA Proposition 65
07 - CERCLA 302.4	08 - ACGIH STEL
09 - OSHA PEL	10 - OSHA Ceiling

WHMIS Hazard Symbols
Class D-2(B) - Materials Causing Other Toxic Effects

Canadian Disclosure List
Sodium Hydroxide (1310-73-2)

CERCLA Hazardous Substances
Trisodium Phosphate (7601-54-9) - RQ 5000 lb
Sodium Hydroxide (1310-73-2) - RQ 1000 lb

Miscellaneous Information
This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA).

This material or all of its components are listed on the Canadian Domestic Substances List (DSL).

SECTION 16 – OTHER INFORMATION

HMIS Rating:
Health: 2
Flammability: 0
Reactivity: 0

NFPA Rating:
Health: 2
Flammability: 0
Reactivity: 0

Abbreviations used in this MSDS
TLV - THRESHOLD LIMIT VALUE
TWA - Time Weighted Average
STEL - SHORT TERM EXPOSURE LIMIT
TPQ - Threshold Planning Quantity
RQ - REPORTABLE QUANTITY
PEL - Permissible Exposure Level
C - CEILING LIMIT
CAS - Chemical Abstract Service Number
NDA - NO DATA AVAILABLE
N/A - Not Applicable or Not Available

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