Date revised: 5/30/2012

MATERIAL SAFETY DATA SHEET

Conforms to 93/112/EC and ISO 11014-1

1. Chemical Product and Company Identification

Product Name: Ecoscint A **Product Number:** LS-273

Chemical Names/ Description: Blend of nonionic surfactants and scintillators in chiral phenylalkanes.

Manufacturer

National Diagnostics
305 Patton Drive
Atlanta, GA 30336

Telephone Numbers

(800) 526-3867
(404) 699-2121

Emergency Numbers

Chemtrec
(800) 424-9300 (U.S. & Canada)
01-703-527-3887 (outside U.S. & Canada)

2. Composition/Information on Ingredients

Component	% Comp.	CAS #	EINECS #	TLV (Units)
Phenyl Xylyl Ethane (PXE)	55 - 70	6196-95-8		none established
Linear alkyl phenyl ethoxylates	30 - 40	9016-45-9		none established
Methanol	1 - 3	67-56-1		200 ppm

EEC LABEL SYMBOL AND CLASSIFICATION

R: 36/38
Irritating to eyes and skin.

S: 26-36
In case of contact with eyes, rinse immediately with plenty of water, and seek medical advice. Wear suitable protective clothing.

3. Hazards Identification

Appearance and Odor
Nearly odorless, clear, blue-violet fluorescent liquid.

EMERGENCY OVERVIEW - IMMEDIATE HAZARD

Phenyl Xylyl Ethane (PXE)
MAY BE IRRITATING TO THE SKIN, EYES, AND RESPIRATORY TRACT.
Linear alkyl phenyl ethoxylates
CAUSES EYE IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION.

EMERGENCY OVERVIEW - CHRONIC HAZARD WARNING
Phenyl Xylyl Ethane (PXE)
NO CHRONIC HEALTH HAZARDS KNOWN
Linear alkyl phenyl ethoxylates
NO ADVERSE EFFECTS HAVE BEEN DOCUMENTED IN HUMANS AS A RESULT OF CHRONIC EXPOSURE.

Potential Health Effects
Inhalation
Phenyl Xylyl Ethane (PXE):
Breathing of the mists, vapors or fumes may irritate the nose, throat and lungs.

Linear alkyl phenyl ethoxylates:
Vapors or mist, expecially as generated from heating the material or as from exposure in poorly ventilated areas or confined spaces, may be irritating and cause discomfort in nose and throat. Prolonged exposure may cause difficulty breathing.

Ingestion
Phenyl Xylyl Ethane (PXE):
May cause irritation of the mouth, throat, and gastrointestinal tract. Exposure may also cause central nervous system symptoms.

Linear alkyl phenyl ethoxylates:
May be harmful by ingestion.

Skin
Phenyl Xylyl Ethane (PXE):
May cause skin irritation.

Linear alkyl phenyl ethoxylates:
Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort.

Eyes
Phenyl Xylyl Ethane (PXE):
Exposure to vapors, fumes or mists may cause irritation. Direct contact may cause irritation.

Linear alkyl phenyl ethoxylates:
Causes irritation and possible injury to the cornea.

Signs and Symptoms of Overexposure
Inhalation
Phenyl Xylyl Ethane (PXE):

Sore throat, coughing, labored breathing, sneezing and burning sensation, depending on the concentration and duration of exposure. May cause central nervous system depression or effects. Symptoms may include headache, excitation, euphoria, dizziness, incoordination, drowsiness, light-headedness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death, depending on the concentration and duration of exposure.

Linear alkyl phenyl ethoxylates:
Discomfort in nose and throat, nasal discharge, coughing, difficulty breathing.

Ingestion
Phenyl Xylyl Ethane (PXE):
Salivation, pain, nausea, vomiting and diarrhea. Exposure may also cause central nervous system symptoms similar to those listed under Inhalation.

Linear alkyl phenyl ethoxylates:
Abdominal discomfort, nausea, and diarrhea.

Skin
Phenyl Xylyl Ethane (PXE):
Drying, reddening, itching, and cracking. Repeated or prolonged contact with large amounts of this material may result in absorption through the skin to produce toxic effects.

Linear alkyl phenyl ethoxylates:
Local redness and swelling.

Eyes
Phenyl Xylyl Ethane (PXE):
Redness, tearing, and blurred vision.

Linear alkyl phenyl ethoxylates:
Excess blinking and tear production. Marked redness and swelling of the eye with injury to the cornea.

Carcinogenicity
Phenyl Xylyl Ethane (PXE):
Not listed by NTP or IARC as a known or possible carcinogen.

Linear alkyl phenyl ethoxylates:
Not listed by NTP or IARC as a known or possible carcinogen.

Mutagenicity
Phenyl Xylyl Ethane (PXE):
No information available.

Linear alkyl phenyl ethoxylates:
No information available.

Reproductive Toxicitiy
Phenyl Xylyl Ethane (PXE):
No information available.

Linear alkyl phenyl ethoxylates:
No information available.

Teratogenic Effects
Phenyl Xylyl Ethane (PXE):
No information available.

Linear alkyl phenyl ethoxylates:
No information available.

Routes of Entry
Phenyl Xylyl Ethane (PXE):
Ingestion, inhalation, skin contact.

Linear alkyl phenyl ethoxylates:
Ingestion, inhalation.

Target Organ Statement
Phenyl Xylyl Ethane (PXE):
No information available.

Linear alkyl phenyl ethoxylates:
No information available.

4. First Aid Measures

Inhalation
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion
Do not induce vomiting, because of danger of aspiration into the lungs. Get medical attention immediately. Adverse effects of aspiration into the lungs may be delayed up to 48 hours.

Skin
Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes
Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Flash Point	74 C	Flammable Limits	N.D.
Flash Point Method	PMCC *	Autoignition temperature	N.D.

* Flash point value determined by Pensky-Martin Closed Cup method (PMCC). Upon request, alternate Tagliabue Closed Cup data (TCC) has been provided in some instances to local regulatory agencies.

Extinguishing media
Water spray, dry chemical, alcohol-resistant foam, or carbon dioxide.

Protective Equipment
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Hazardous Combustion Products
Fires involving this product may release carbon monoxide, carbon dioxide, reactive hydrocarbons and irritating vapors.

Unusual Fire and Explosion Hazards
Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back.

NFPA Codes: Health 1 Flammability 2 Reactivity 0

6. Accidental Release Measures
Steps to be taken in case material is released or spilled
Eliminate source of ignition. Ventilate area. Cover with absorbent material (dry sand or earth) to confine spill and sweep or shovel into container. Close container tightly. Avoid breathing vapors.

Waste Disposal Method
Disposal must be made in accordance with applicable federal, state, and local regulations.

Personal Precautions
Wear appropriate protective equipment as specified in section 8.

7. Handling and Storage
Handling
Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Transfer methods should avoid static sparks. Do not eat, drink, or smoke in areas of use or storage.

Storage

Keep in a tightly closed container, stored in a cooled, dry, ventilated area away from sources of heat or ignition. Protect from physical damage.

Storage Temperature
Room Temperature

Disposal
Observe all national, state, and local regulations regarding disposal.

8. Exposure Controls/Personal Protection
Airborne Exposure Limits

Component: Phenyl Xylyl Ethane (PXE)

ACGIH Threshold Limit Value (TLV):	none established
OSHA Permissable Exposure Limit (PEL):	

Component: Linear alkyl phenyl ethoxylates

ACGIH Threshold Limit Value (TLV):	none established
OSHA Permissable Exposure Limit (PEL):	

Engineering Controls
A system of local and/or general exhaust is recommended. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

Respiratory Protection
For conditions of use where exposure to the substance is apparent, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.

Eye Protection
Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin Protection
Wear protective gloves and clean body covering clothing.

Other Control Measures
N.A.

9. Physical Properties

Boiling point	575 - 605 F	**Evaporation rate**	Not measureable
Melting point	N.A.	**Solubity in water**	30% by weight @ 20C
Vapor pressure (mmHg)	< 0.1	**pH**	N.A.
Vapor density (Air = 1)	Not determinable	**Specific gravity (H2O = 1)**	0.91
% volatile by volume	100%		

10. Stability and Reactivity

Stability

Stable under ordinary conditions of use and storage.

Conditions to Avoid

Heat, sources of ignition.

Hazardous Decomposition Products

Combustion may produce toxic oxides of carbon, nitrogen, sulfur and reactive hydrocarbons.

Hazardous Polymerization

Will not occur

Incompatibles

Phenyl Xylyl Ethane (PXE):

Oxidizing agents.

Linear alkyl phenyl ethoxylates:

Oxidizing agents.

Methanol:

Incompatible with acetyl bromide, calcium carbide, chlorine, chromic anhydride, cyanuric chloride, dichloromethane, diethyl zinc, lead perchlorate, magnesium, metals, strong oxidizers, perchloric acid, phosphorous trioxide, potassium, sodium hypochlorite, sulfuric acid, and zinc.

11. Toxicological Information

Product LD50 Values

Ecoscint A	Oral Rat LD50 (mg/kg):	No data.
Ecoscint A	Dermal Rabbit LD50 (mg/kg):	No data.

Component Cancer List Status

	NTP Carcinogen		
	Known	Anticipated	IARC Category
Phenyl Xylyl Ethane (PXE)	No	No	None
Linear alkyl phenyl ethoxylates	No	No	None
Methanol	No	No	None

12. Ecological Information

Phenyl Xylyl Ethane (PXE)

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA is is the responsibility of the user to determine, at the time of disposal, whether the product meets the criteria for hazardous waste.

Linear alkyl phenyl ethoxylates

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA is is the responsibility of the user to determine, at the time of disposal, whether the product meets the criteria for hazardous waste.

Methanol

No information available.

13. Disposal Considerations

Observe all national, state, and local regulations regarding disposal.

14. Transport Information

D.O.T.

Proper Shipping Name: Not regulated.
Hazard Class: N.A.
UN Number: N.A.
Packing Group: N.A.

I.A.T.A.

Proper Shipping Name: Not regulated.
Hazard Class: N.A.
UN Number: N.A.
Packing Group: N.A.

I.M.O.

Proper Shipping Name: Not regulated.
Hazard Class: N.A.

UN Number: N.A.
Packing Group: N.A.

15. Regulatory Information
United States
TSCA Regulatory Statement
All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
Phenyl Xylyl Ethane (PXE)	No	No	No	Yes	No
Linear alkyl phenyl ethoxylates	No	No	No	Yes	No
Methanol	Yes	No	No	Yes	Yes

Europe
EEC Regulatory
All intentional ingredients are listed on the European EINECS Inventory.

EEC LABEL SYMBOL AND CLASSIFICATION

R: 36/38
Irritating to eyes and skin.

S: 26-36
In case of contact with eyes, rinse immediately with plenty of water, and seek medical advice. Wear suitable protective clothing.

16. Other Information
NFPA Codes: Health 1 Flammability 2 Reactivity 0

MANUFACTURER DISCLAIMER: The information given herein is offered in good faith as accurate, but without guarantee. Conditions of the use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.