

# SAFETY DATA SHEET



Conforms to regulation (EC) no. EU 453/2010

## SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product Identifier

**Product Name:** Ecoscint Flow

**Product Number:** LS-288

### 1.2 Relevant Identified Uses of the Substance/Mixture and Uses Advised Against

Investigational research by professional users

### 1.3 Details of the Supplier of the Safety Data Sheet

#### Manufacturer

National Diagnostics  
305 Patton Drive  
Atlanta, GA 30036  
(404) 699-2121  
(800) 526-3867  
info@nationaldiagnostics.com

### 1.4 Emergency Telephone Number

#### ChemTel Inc.

Contract number MIS8894340  
1-800 255-3924 (United States, Canada, Puerto Rico & US Virgin Islands)  
01-800-099-0731 (Mexico)  
400-120-0751 (China)  
000-800-100-4086 (India)  
1-300-954-583 (Australia)  
0-800-591-6042 (Brazil)  
+1-813-255-3924 (All other regions)

## SECTION 2 - HAZARDS IDENTIFICATION

### 2.1 Classification of the Substance or Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

H302 - Acute Toxicity-Oral (Category 4)  
H305 - Aspiration Hazard (Category 2)  
H315 - Skin Corrosion/Irritation (Category 2)  
H319 - Serious Eye Damage/Eye Irritation (Category 2A)  
H411 - Chronic Hazards to the Aquatic Environment (Category 2)

### 2.2 Label Elements

#### GHS LABEL ELEMENTS AND CLASSIFICATION

##### GHS Label Elements



#### WARNING

H302 - Harmful if swallowed  
H305 - May be harmful if swallowed and enters airways.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H411 - Toxic to aquatic life with long lasting effects.  
P262 - Do not get into eyes, on skin or on clothing.  
P273 - Avoid release to the environment.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P308+P313 - IF exposed or concerned: Call a POISON CENTER or doctor/physician.  
P337+P313 - IF eye irritation persists: Get medical advice/attention.

### 2.3 Other Hazards

None found.

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixture

#### Chemical Names/Description

Blend of scintillators in chiral phenylalkanes.

## Component List

Component	% Comp.	CAS #	EC #	1278/2008 Classification
Phenyl Xylyl Ethane (PXE)	50 - 70	6196-95-8	228-249-2	H304, H315, H319
Primary Alcohol Ethoxylate	5 - 10	68439-46-3	614-482-0	H318
Linear alkyl phenyl ethoxylates	20 - 30	9016-45-9	500-024-6	H315, H319, H411
Butoxy Ethanol	5 - 10	111-76-2	203-905-0	H302, H312, H315, H319, H332

## SECTION 4 - FIRST AID MEASURES

### 4.1 Description of 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. If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.

#### 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.

### 4.2 Most Important Symptoms and Effects, Both Acute and Delayed

#### 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.

##### Primary Alcohol Ethoxylate:

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.

##### Butoxy Ethanol:

Burning in nose and throat, coughing. Headache, dizziness, drowsiness, fatigue, nausea.

#### 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.

##### Primary Alcohol Ethoxylate:

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.

##### Butoxy Ethanol:

Headache, dizziness, drowsiness, fatigue, nausea, vomiting.

#### 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.

##### Primary Alcohol Ethoxylate:

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.

##### Butoxy Ethanol:

Redness, pain and itching.

## Eyes

### Phenyl Xylyl Ethane (PXE):

Redness, tearing, and blurred vision.

### Primary Alcohol Ethoxylate:

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.

### Butoxy Ethanol:

Redness, tearing, and pain.

## 4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Unknown/not applicable

## SECTION 5 - FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

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

### 5.2 Special Hazards Arising from the Substance/Mixture

#### Hazardous Combustion Products

Thermal decomposition products may include carbon monoxide, carbon dioxide, and hydrocarbons.

#### Hazardous Decomposition Products

Combustion may produce toxic oxides of carbon and reactive hydrocarbons.

#### Hazardous Polymerization

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

### 5.3 Advice for Firefighters

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.

### 5.4 Further Information

No data available.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions

Wear appropriate protective equipment as specified in Section 8.

### 6.2 Environmental Precautions

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

### 6.3 Methods and Materials for Containment and Cleaning Up

Eliminate source of ignition. Ventilate area. Cover with absorbent material (soda ash) to confine spill and sweep or shovel into container. Close container tightly. Avoid breathing vapors.

### 6.4 References to Other Sections

For disposal information, see Section 13. For protective clothing and equipment, see Section 8.

## SECTION 7 - HANDLING AND STORAGE

### 7.1 Precautions for Safe 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.

### 7.2 Conditions for Safe Storage (including any incompatibles)

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

#### Incompatibles

##### Phenyl Xylyl Ethane (PXE):

Oxidizing agents.

##### Primary Alcohol Ethoxylate:

Strong oxidizing agents. Aluminum surfaces at temperatures above 120 degrees..

##### Linear alkyl phenyl ethoxylates:

Oxidizing agents.

##### Butoxy Ethanol:

Strong oxidizing agents. Strong bases and salts of strong bases at elevated temperatures. Aluminum surfaces.

### 7.3 Specific End Uses

Investigational research by professional users

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PRECAUTIONS

### 8.1 Control Parameters

**Component: Phenyl Xylyl Ethane (PXE)**

ACGIH Threshold Limit Value (TLV): none established

OSHA Permissible Exposure Limit (PEL): None established

**Component: Primary Alcohol Ethoxylate**

ACGIH Threshold Limit Value (TLV): none established

OSHA Permissible Exposure Limit (PEL): None established

**Component: Linear alkyl phenyl ethoxylates**

ACGIH Threshold Limit Value (TLV): none established

OSHA Permissible Exposure Limit (PEL): None established

**Component: Butoxy Ethanol**

ACGIH Threshold Limit Value (TLV): 25 ppm (skin)

OSHA Permissible Exposure Limit (PEL): 25 ppm

### 8.2 Exposure Controls

#### Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. 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.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on Basic Physical & Chemical Properties

a. Appearance	Clear solution	b. Odor	Odorless
c. Odor Threshold	N.A.	d. pH	N.A.
e. Melting/Freezing Point (°C)	0	f. Boiling point (°C)	302-318
g. Flash Point (°C)	91	h. Evaporation Rate	Not measureable
i. Flammability	N.A.	j. Upper/Lower Flammability or Explosive Limits	ND
k. Vapor Pressure	< 0.1	l. Vapor Density (Air = 1)	Not determinable
m. Relative Density	0.91	n. Water Solubility	Slightly soluble.
o. Partition Coefficient n-octanol/water	Mixture	p. Autoignition Temperature (°C)	> 375
q. Decomposition Temperature (°C)	N.A.	r. Viscosity	ND
s. Explosive Properties	Can be made to burn	t. Oxidizing Properties	Not an oxidizer

## SECTION 10 - STABILITY AND REACTIVITY

### 10.1 Reactivity

Material can be made to burn; combustion is generally not self-sustaining. Reacts with oxidizers.

### 10.2 Chemical Stability

Stable under ordinary conditions of use and storage.

### 10.3 Possibility of Hazardous Reactions

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

### 10.4 Conditions to Avoid

Heat, sources of ignition.

## 10.5 Incompatible Materials

**Phenyl Xylyl Ethane (PXE):**  
Oxidizing agents.

**Primary Alcohol Ethoxylate:**  
Strong oxidizing agents. Aluminum surfaces at temperatures above 120 degrees..

**Linear alkyl phenyl ethoxylates:**  
Oxidizing agents.

**Butoxy Ethanol:**  
Strong oxidizing agents. Strong bases and salts of strong bases at elevated temperatures. Aluminum surfaces.

## 10.6 Hazardous Decomposition Products

Combustion may produce toxic oxides of carbon and reactive hydrocarbons.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Product LD50 Values

**Oral Rat LD50 (mg/kg)**  
No Data

**Dermal Rabbit LD50 (mg/kg)**  
No Data

### Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
Phenyl Xylyl Ethane (PXE)	No	No	None
Primary Alcohol Ethoxylate	No	No	None
Linear alkyl phenyl ethoxylates	No	No	None
Butoxy Ethanol	No	No	None

### Potential Health Effects

#### Inhalation

**Phenyl Xylyl Ethane (PXE)**  
Breathing of the mists, vapors or fumes may irritate the nose, throat and lungs.

**Primary Alcohol Ethoxylate**  
Information not found.

**Linear alkyl phenyl ethoxylates**  
Vapors or mist, especially 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.

**Butoxy Ethanol**  
Vapors may cause irritation to the nose, throat, and respiratory tract and are toxic if inhaled.

#### Ingestion

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

**Primary Alcohol Ethoxylate**  
Moderately toxic by ingestion.

**Linear alkyl phenyl ethoxylates**  
May be harmful by ingestion.

**Butoxy Ethanol**  
Moderately toxic if ingested.

#### Skin

**Phenyl Xylyl Ethane (PXE)**  
May cause skin irritation.

**Primary Alcohol Ethoxylate**  
Severely irritating to the skin and moderately toxic if absorbed through the skin.

**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.

**Butoxy Ethanol**  
Product is mildly irritating to the skin and toxic if absorbed through the skin.

## Eyes

### Phenyl Xylyl Ethane (PXE)

Exposure to vapors, fumes or mists may cause irritation. Direct contact may cause irritation.

### Primary Alcohol Ethoxylate

Severely irritating to the eyes.

### Linear alkyl phenyl ethoxylates

Causes irritation and possible injury to the cornea.

### Butoxy Ethanol

Causes severe eye irritation.

## Carcinogenicity

### Phenyl Xylyl Ethane (PXE)

Not listed by NTP or IARC as a known or possible carcinogen.

### Primary Alcohol Ethoxylate

No information available.

### Linear alkyl phenyl ethoxylates

Not listed by NTP or IARC as a known or possible carcinogen.

### Butoxy Ethanol

Not listed as a known or anticipated carcinogen by NTP or IARC.

## Mutagenicity

### Phenyl Xylyl Ethane (PXE)

No information available.

### Primary Alcohol Ethoxylate

No information available.

### Linear alkyl phenyl ethoxylates

No information available.

### Butoxy Ethanol

No information found.

## Reproductive Toxicity

### Phenyl Xylyl Ethane (PXE)

No information available.

### Primary Alcohol Ethoxylate

No information available.

### Linear alkyl phenyl ethoxylates

No information available.

### Butoxy Ethanol

Inhalation exposure of pregnant rabbits caused some lethality to the dam and fetus at 200 ppm, but there were no effects at 100 ppm and below. Inhalation exposure to pregnant rats caused irritancy to the dams and related fetotoxicity at 200 and 100 ppm, but there were no effects at 50 ppm and below.

## Teratogenic Effects

### Phenyl Xylyl Ethane (PXE)

No information available.

### Primary Alcohol Ethoxylate

No information available.

### Linear alkyl phenyl ethoxylates

No information available.

### Butoxy Ethanol

Has not been shown to cause birth defects.

## Routes of Entry

### Phenyl Xylyl Ethane (PXE)

Ingestion, inhalation, skin contact.

### Primary Alcohol Ethoxylate

Inhalation, ingestion, skin contact.

**Linear alkyl phenyl ethoxylates**  
Ingestion, inhalation.

**Butoxy Ethanol**  
Inhalation, ingestion, skin contact.

**Target Organ Statement**

**Phenyl Xylyl Ethane (PXE)**  
No information available.

**Primary Alcohol Ethoxylate**  
No information available.

**Linear alkyl phenyl ethoxylates**  
No information available.

**Butoxy Ethanol**  
Preexisting skin, eye, and lung disorders may be aggravated by exposure.

**SECTION 12 - ECOLOGICAL INFORMATION**

**12.1 Toxicity**

**COMPONENT: Phenyl Xylyl Ethane (PXE)**

	<b>Vertebrates</b>	<b>Invertebrates</b>	<b>Algae</b>	<b>Microorganisms</b>
Aquatic Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

	<b>Birds</b>	<b>Arthropods</b>	<b>Plants</b>	<b>Microorganisms</b>
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

**COMPONENT: Primary Alcohol Ethoxylate**

	<b>Vertebrates</b>	<b>Invertebrates</b>	<b>Algae</b>	<b>Microorganisms</b>
Aquatic Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

	<b>Birds</b>	<b>Arthropods</b>	<b>Plants</b>	<b>Microorganisms</b>
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

**COMPONENT: Linear alkyl phenyl ethoxylates**

	<b>Vertebrates</b>	<b>Invertebrates</b>	<b>Algae</b>	<b>Microorganisms</b>
Aquatic Toxicity (ppm unless otherwise noted)	No data	LC50(48hrs, daphnia) 1.821 mg/L	EC50 (48hrs) 20 mg/L	No data

	<b>Birds</b>	<b>Arthropods</b>	<b>Plants</b>	<b>Microorganisms</b>
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

**COMPONENT: Butoxy Ethanol**

	<b>Vertebrates</b>	<b>Invertebrates</b>	<b>Algae</b>	<b>Microorganisms</b>
Aquatic Toxicity (ppm unless otherwise noted)	LC50 (96hr, trout) 1464mg/l	EC50 (48 hr daphnia) 1800 mg/L	EC50 (72 hr) 911mg/l	Toxicity Threshold 483mg/L

	<b>Birds</b>	<b>Arthropods</b>	<b>Plants</b>	<b>Microorganisms</b>
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

**12.2 Persistence and Degradability**

**Phenyl Xylyl Ethane (PXE)**  
No data

**Primary Alcohol Ethoxylate**  
No data

**Linear alkyl phenyl ethoxylates**  
Readily biodegradable >97% elimination in 30 days

**Butoxy Ethanol**  
Readily biodegradable (90% in 28 days)

**12.3 Bioaccumulative Potential**

**Phenyl Xylyl Ethane (PXE)**  
No data

**Primary Alcohol Ethoxylate**  
No data

**Linear alkyl phenyl ethoxylates**  
No data

**Butoxy Ethanol**  
No data

## 12.4 Mobility in Soil

**Phenyl Xylyl Ethane (PXE)**  
No data

**Primary Alcohol Ethoxylate**  
No data

**Linear alkyl phenyl ethoxylates**  
No data

**Butoxy Ethanol**  
No data

## 12.5 Results of PBT and vPvB Assessment

**Phenyl Xylyl Ethane (PXE)**  
No data

**Primary Alcohol Ethoxylate**  
No data

**Linear alkyl phenyl ethoxylates**  
Substance is PBT / vPvB

**Butoxy Ethanol**  
Not PBT/vPvB

## 12.6 Other Adverse Effects

**Phenyl Xylyl Ethane (PXE)**  
None

**Primary Alcohol Ethoxylate**  
None

**Linear alkyl phenyl ethoxylates**  
None

**Butoxy Ethanol**  
None

## SECTION 13 - DISPOSAL CONSIDERATIONS

### 13.1 Waste Treatment Methods

Offer surplus or non-recyclable product to licensed disposal company. Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product.

## SECTION 14 - TRANSPORT INFORMATION

	ADR/RID	IATA	IMO	DOT
<b>14.1 UN Number</b>	UN3082	N.A.	UN3082	N.A.
<b>14.2 Shipping Name</b>	Environmentally Hazardous Substance, Liquid, N.O.S.	Not regulated.	Environmentally Hazardous Substance, Liquid, N.O.S.	Not regulated.
<b>14.3 Hazard Class</b>	9	N.A.	9	N.A.
<b>14.4 Packing Group</b>	III	N.A.	III	N.A.
<b>14.5 Environmental Hazards</b>	N.A.	N.A.	Marine pollutant	N.A.
<b>14.6 Special Precautions</b>	N.A.	N.A.	N.A.	N.A.

## SECTION 15 - REGULATORY INFORMATION

### 15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance/Mixture 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
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Phenyl Xylyl Ethane (PXE)	No	No	No	Yes	No
Primary Alcohol Ethoxylate	No	No	No	Yes	No
Linear alkyl phenyl ethoxylates	No	No	No	Yes	No
Butoxy Ethanol	Yes	No	No	Yes	No

## Europe

### EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

## SECTION 16 - OTHER INFORMATION

### Revisional Updates

4/26/2019 - Updated Section 1.4  
 8/14/2015 - Updated Sections 14.1, 14.2, 14.3 and 14.4  
 5/29/2015 - Updated Sections 2.1 and 3.2  
 8/5/2013- Released Version 1.0

### NFPA Codes

Health 1 Flammability 1 Reactivity 0

### Dangers

#### Phenyl Xylyl Ethane (PXE)

H304 - May be fatal if swallowed and enters airways.  
 H315 - Causes skin irritation.  
 H319 - Causes serious eye irritation.

#### Primary Alcohol Ethoxylate

H318 - Causes serious eye damage.

#### Linear alkyl phenyl ethoxylates

H315 - Causes skin irritation.  
 H319 - Causes serious eye irritation.  
 H411 - Toxic to aquatic life with long lasting effects.

#### Butoxy Ethanol

H302 - Harmful if swallowed  
 H312 - Harmful in contact with skin.  
 H315 - Causes skin irritation.  
 H319 - Causes serious eye irritation.  
 H332 - Harmful if inhaled.

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