

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: Bioscint

Product Number: LS-309

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

Mixture of organic solvents, detergents, and phosphors

Component List

Component	% Comp.	CAS #	EC #	1278/2008 Classification
Phenyl Xylyl Ethane (PXE)	60 - 70	6196-95-8	228-249-2	H304, H315, H319
Linear alkyl phenyl ethoxylates	20 - 30	9016-45-9	500-024-6	H315, H319, H411
Butoxy Ethanol	1 - 3	111-76-2	203-905-0	H302, H312, H315, H319, H332
Alcohol ethoxylate phosphate ester	1 - 3	51811-79-1		H315, H319

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.

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.

Alcohol ethoxylate phosphate ester:

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.

Butoxy Ethanol:

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

Alcohol ethoxylate phosphate ester:

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.

Butoxy Ethanol:

Redness, pain and itching.

Alcohol ethoxylate phosphate ester:

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.

Butoxy Ethanol:

Redness, tearing, and pain.

Alcohol ethoxylate phosphate ester:

Excess blinking and tear production. Marked redness and swelling of the eye with injury to the cornea.

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

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

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.

Linear alkyl phenyl ethoxylates:

Oxidizing agents.

Butoxy Ethanol:

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

Alcohol ethoxylate phosphate ester:

Oxidizing agents.

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: 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

Component: Alcohol ethoxylate phosphate ester

ACGIH Threshold Limit Value (TLV):

none established

OSHA Permissible Exposure Limit (PEL):

None established

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, colorless liquid	b. Odor	None
c. Odor Threshold	N.A.	d. pH	N.A.
e. Melting/Freezing Point (°C)	N.A.	f. Boiling point (°C)	N.A.
g. Flash Point (°C)	140	h. Evaporation Rate	Not measureable
i. Flammability	N.A.	j. Upper/Lower Flammability or Explosive Limits	N.D.
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)	N.A.
q. Decomposition Temperature (°C)	Not applicable.	r. Viscosity	ND
s. Explosive Properties	N.A.	t. Oxidizing Properties	Not an oxidizer

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

Not reactive under normal conditions of use.

10.2 Chemical Stability

Stable under recommended 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.

Linear alkyl phenyl ethoxylates:

Oxidizing agents.

Butoxy Ethanol:

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

Alcohol ethoxylate phosphate ester:

Oxidizing agents.

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)

> 1500

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
Butoxy Ethanol	No	No	None
Alcohol ethoxylate phosphate ester	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.

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.

Alcohol ethoxylate phosphate ester

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.

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.

Butoxy Ethanol

Moderately toxic if ingested.

Alcohol ethoxylate phosphate ester

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.

Butoxy Ethanol

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

Alcohol ethoxylate phosphate ester

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.

Butoxy Ethanol

Causes severe eye irritation.

Alcohol ethoxylate phosphate ester

Causes irritation and possible 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.

Butoxy Ethanol

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

Alcohol ethoxylate phosphate ester

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.

Butoxy Ethanol

No information found.

Alcohol ethoxylate phosphate ester

No information available.

Reproductive Toxicity

Phenyl Xylyl Ethane (PXE)

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.

Alcohol ethoxylate phosphate ester

No information available.

Teratogenic Effects

Phenyl Xylyl Ethane (PXE)

No information available.

Linear alkyl phenyl ethoxylates

No information available.

Butoxy Ethanol

Has not been shown to cause birth defects.

Alcohol ethoxylate phosphate ester

No information available.

Routes of Entry

Phenyl Xylyl Ethane (PXE)

Ingestion, inhalation, skin contact.

Linear alkyl phenyl ethoxylates

Ingestion, inhalation.

Butoxy Ethanol

Inhalation, ingestion, skin contact.

Alcohol ethoxylate phosphate ester

Ingestion, inhalation.

Target Organ Statement

Phenyl Xylyl Ethane (PXE)

No information available.

Linear alkyl phenyl ethoxylates

No information available.

Butoxy Ethanol

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

Alcohol ethoxylate phosphate ester

No information available.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

COMPONENT: Phenyl Xylyl Ethane (PXE)

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

COMPONENT: Linear alkyl phenyl ethoxylates

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

	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

COMPONENT: Butoxy Ethanol

	Vertebrates	Invertebrates	Algae	Microorganisms
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

	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

COMPONENT: Alcohol ethoxylate phosphate ester

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

	Birds	Arthropods	Plants	Microorganisms
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

Linear alkyl phenyl ethoxylates

Readily biodegradable >97% elimination in 30 days

Butoxy Ethanol

Readily biodegradable (90% in 28 days)

Alcohol ethoxylate phosphate ester

Not readily biodegradable- 13% elimination in 28 days

12.3 Bioaccumulative Potential

Phenyl Xylyl Ethane (PXE)

No data

Linear alkyl phenyl ethoxylates

No data

Butoxy Ethanol
No data

Alcohol ethoxylate phosphate ester
No data

12.4 Mobility in Soil

Phenyl Xylyl Ethane (PXE)
No data

Linear alkyl phenyl ethoxylates
No data

Butoxy Ethanol
No data

Alcohol ethoxylate phosphate ester
Ultimate destination: water or sediment

12.5 Results of PBT and vPvB Assessment

Phenyl Xylyl Ethane (PXE)
No data

Linear alkyl phenyl ethoxylates
Substance is PBT / vPvB

Butoxy Ethanol
Not PBT/vPvB

Alcohol ethoxylate phosphate ester
No data

12.6 Other Adverse Effects

Phenyl Xylyl Ethane (PXE)
None

Linear alkyl phenyl ethoxylates
None

Butoxy Ethanol
None

Alcohol ethoxylate phosphate ester
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
14.1 UN Number	UN3082	N.A.	UN3082	N.A.
14.2 Shipping Name	Environmentally Hazardous Substance, Liquid, N.O.S.	Not regulated.	Environmentally Hazardous Substance, Liquid, N.O.S.	Not regulated.
14.3 Hazard Class	9	N.A.	9	N.A.
14.4 Packing Group	III	N.A.	III	N.A.
14.5 Environmental Hazards	N.A.	N.A.	Not regulated	N.A.
14.6 Special Precautions	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
Phenyl Xylyl Ethane (PXE)	No	No	No	Yes	No
Linear alkyl phenyl ethoxylates	No	No	No	Yes	No
Butoxy Ethanol	Yes	No	No	Yes	No
Alcohol ethoxylate phosphate ester	No	No	No	Yes	No

Europe**EEC Regulatory**

All intentional ingredients are listed on the European EINECS Inventory.

SECTION 16 - OTHER INFORMATION**Revisional Updates**

8/8/2023 - Updated Section 14.5

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

10/8/2013 - Released Version 1.0

NFPA Codes

Health 2 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.

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.

Alcohol ethoxylate phosphate ester

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

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