

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **Inflow BD**

CHEMICAL NAMES/ DESCRIPTION: Aromatic hydrocarbons and surfactants with scintillation phosphors

MANUFACTURER: IN/US Systems, Inc.
5809 North 50th Street
Tampa, FL 33610-4809

TELEPHONE NUMBER:
TEL 813 626-6848
FAX 813 620-3708

EMERGENCY NUMBER:
CHEMTREC (800) 424-9300

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component	% Comp	CAS #	EINECS #	TLV (units)
Nalkylene	45 - 60	129813-58-7		none established
Linear alkyl phenyl ethoxylates	10 - 20	9016-45-9		none established
alcohol ethoxylate phosphate ester	10 - 20	2610033		none established
Butoxy Ethanol	10 - 20	111-76-2	111-76-2	25 ppm (skin)
PPO	< 1	92-71-7	202-181-3	10 mg/m3
Bis-MSB	< 1	13280-61-0		none established

3. HAZARDS IDENTIFICATION

APPEARANCE AND ODOR: Clear, colorless liquid; slight aromatic odor.

EMERGENCY OVERVIEW - IMMEDIATE HAZARD

Nalkylene

MAY BE IRRITATING TO THE SKIN, EYES, AND RESPIRATORY TRACT.

alcohol ethoxylate phosphate ester

CAUSES EYE IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION.

Linear alkyl phenyl ethoxylates

CAUSES EYE IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION.

Butoxy Ethanol

CAUTION! SEVERELY IRRITATING TO THE EYES. IRRITATING TO THE SKIN, NOSE THROAT AND RESPIRATORY TRACT. TOXIC IF INHALED, INGESTED OR ABSORBED THROUGH SKIN.

EMERGENCY OVERVIEW - CHRONIC HAZARD WARNING

Nalkylene

NO CHRONIC HEALTH HAZARDS KNOWN

alcohol ethoxylate phosphate ester

NO ADVERSE EFFECTS HAVE BEEN DOCUMENTED IN HUMANS AS A RESULT OF CHRONIC EXPOSURE.

Linear alkyl phenyl ethoxylates

NO ADVERSE EFFECTS HAVE BEEN DOCUMENTED IN HUMANS AS A RESULT OF CHRONIC EXPOSURE.

Butoxy Ethanol

NO INFORMATION FOUND.

POTENTIAL HEALTH EFFECTS

INHALATION

Nalkylene

Breathing of the mists, vapors or fumes may irritate the nose, throat and lungs.

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.

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

Nalkylene

May cause irritation of the mouth, throat, and gastrointestinal tract. Exposure may also cause central nervous system symptoms.

alcohol ethoxylate phosphate ester

May be harmful by ingestion.

Linear alkyl phenyl ethoxylates

May be harmful by ingestion.

Butoxy Ethanol

Moderately toxic if ingested.

SKIN

Nalkylene

May cause skin irritation.

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.

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

Nalkylene

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

alcohol ethoxylate phosphate ester

Causes irritation and possible injury to the cornea.

Linear alkyl phenyl ethoxylates

Causes irritation and possible injury to the cornea.

Butoxy Ethanol

Causes severe eye irritation.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

INHALATION

Nalkylene

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.

alcohol ethoxylate phosphate ester

Discomfort in nose and throat, nasal discharge, coughing, difficulty breathing.

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

Nalkylene

Salivation, pain, nausea, vomiting and diarrhea. Exposure may also cause central nervous system symptoms similar to those listed under "Inhalation."

alcohol ethoxylate phosphate ester

Abdominal discomfort, nausea, and diarrhea.

Linear alkyl phenyl ethoxylates

Abdominal discomfort, nausea, and diarrhea.

Butoxy Ethanol

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

SKIN

Nalkylene

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.

alcohol ethoxylate phosphate ester
Local redness and swelling.

Linear alkyl phenyl ethoxylates
Local redness and swelling.

Butoxy Ethanol
Redness, pain and itching.

EYES

Nalkylene
Redness, tearing, and blurred vision.

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

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.

CARCINOGENICITY

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

alcohol ethoxylate phosphate ester
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.

MUTAGENICITY

Nalkylene
No information available.

alcohol ethoxylate phosphate ester
No information available.

Linear alkyl phenyl ethoxylates
No information available.

Butoxy Ethanol
No information found.

REPRODUCTIVE TOXICITY

Nalkylene
No information available.

alcohol ethoxylate phosphate ester
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

Nalkylene
No information available.

alcohol ethoxylate phosphate ester
No information available.

Linear alkyl phenyl ethoxylates
No information available.

Butoxy Ethanol
Has not been shown to cause birth defects.

ROUTES OF ENTRY

Nalkylene
Ingestion, inhalation, skin contact.

alcohol ethoxylate phosphate ester
Ingestion, inhalation.

Linear alkyl phenyl ethoxylates
Ingestion, inhalation.

Butoxy Ethanol
Inhalation, ingestion, skin contact.

TARGET ORGAN STATEMENT

Nalkylene

No information available.

alcohol ethoxylate phosphate ester

No information available.

Linear alkyl phenyl ethoxylates

No information available.

Butoxy Ethanol

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

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: 300 F (150 C) **FLAMMABLE LIMITS:** N.D.

FLASH POINT METHOD: TCC **AUTOIGNITION TEMPERATURE:** N.D.

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: 1 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. Use explosion proof ventilation.

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:	Nalkylene		
	ACGIH Threshold Limit Value (TLV):		none established
	OSHA Permissible Exposure Limit (PEL):		
Component:	alcohol ethoxylate phosphate ester		
	ACGIH Threshold Limit Value (TLV):		none established
	OSHA Permissible Exposure Limit (PEL):		
Component:	Linear alkyl phenyl ethoxylates		
	ACGIH Threshold Limit Value (TLV):		none established
	OSHA Permissible Exposure Limit (PEL):		
Component:	Butoxy Ethanol		
	ACGIH Threshold Limit Value (TLV):		25 ppm (skin)
	OSHA Permissible Exposure Limit (PEL):		25 ppm

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.	Solubility in Water	30% by weight @ 20C
Vapor Pressure mm Hg	< 0.1	pH	N.A.
Vapor Density Air = 1	Not determinable	Specific Gravity (H2O = 1)	0.91
% Volatile by Volume	< 1.0		

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

Nalkylene

Oxidizing agents.

Linear alkyl phenyl ethoxylates

Oxidizing agents.

alcohol ethoxylate phosphate ester

Oxidizing agents.

Butoxy Ethanol

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

PPO

Strong oxidizers.

Bis-MSB

Strong oxidants.

11. TOXICOLOGICAL INFORMATION

PRODUCT LD50 VALUES

Inflow BD

Oral Rat LD50 (mg/kg): No Data

Inflow BD

Dermal Rabbit LD50 (mg/kg): No Data

COMPONENT CANCER LIST STATUS

Component	NTP Carcinogen		IARC Category
	Known	Anticipated	
Nalkylene	No	No	None
alcohol ethoxylate phosphate ester	No	No	None
Linear alkyl phenyl ethoxylates	No	No	None
Butoxy Ethanol	No	No	None
PPO	No	No	None
Bis-MSB	No	No	None

12. ECOLOGICAL INFORMATION

Nalkylene

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 it is the responsibility of the user to determine, at the time of disposal, whether the product meets the criteria for hazardous waste.

alcohol ethoxylate phosphate ester

No information available.

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.

Butoxy Ethanol

No information available.

PPO

No information found.

Bis-MSB

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:

All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
Nalkylene	No	No	No	Yes	No
alcohol ethoxylate phosphate ester	No	No	No	Yes	No
Linear alkyl phenyl ethoxylates	No	No	No	Yes	No
Butoxy Ethanol	Yes	No	No	Yes	No
PPO	No	No	No	Yes	No
Bis-MSB	N.D.	N.D.	N.D.	N.D.	N.D.

EUROPE

EEC Regulatory:

All intentional ingredients are listed on the European EINECS Inventory.

16. OTHER INFORMATION

NFPA CODES: Health: 1 Flammability: 1 Reactivity: 0

MANUFACTURER DISCLAIMER: The information given herein is offered in good faith as accurate, but without guarantee. Conditions of 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.