

# MATERIAL SAFETY DATA SHEET



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

## 1. Chemical Product and Company Identification

**Product Name:** Monoflow 5

**Product Number:** LS-285

**Chemical Names/**

Blend of nonionic surfactants and scintillators in chiral phenylalkanes.

**Description:**

**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)
Nalkylene	70 - 85	129813-58-7		none established
Linear alkyl phenyl ethoxylates	15 - 30	9016-45-9		none established
1-methoxy-2-(2-methoxyethoxy)ethane	1 - 3	111-96-6		none established

## 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**

Nalkylene

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:**

Nalkylene

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**

Nalkylene:

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.

### **Ingestion**

Nalkylene:

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**

Nalkylene:

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**

Nalkylene:

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**

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.

Linear alkyl phenyl ethoxylates:

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

### **Ingestion**

Nalkylene:

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**

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.

Linear alkyl phenyl ethoxylates:

Local redness and swelling.

### **Eyes**

Nalkylene:

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**

Nalkylene:

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**

Nalkylene:

No information available.

Linear alkyl phenyl ethoxylates:

No information available.

### **Reproductive Toxicity**

Nalkylene:

No information available.

Linear alkyl phenyl ethoxylates:

No information available.

### **Teratogenic Effects**

Nalkylene:

No information available.

Linear alkyl phenyl ethoxylates:

No information available.

### **Routes of Entry**

Nalkylene:

Ingestion, inhalation, skin contact.

Linear alkyl phenyl ethoxylates:

Ingestion, inhalation.

### **Target Organ Statement**

Nalkylene:

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 in 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	>93 C	Flammable Limits	ND
Flash Point Method	PMCC*	Autoignition temperature	ND

\* 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 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: Linear alkyl phenyl ethoxylates

ACGIH Threshold Limit Value (TLV): none established

OSHA Permissible 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** 270 - 312 C

**Evaporation Rate** Not measureable

**Melting point** N.A.

**Solubility in water** 30% by weight @ 20C

**Vapor pressure (mmHg)**

**pH** N/D

**Vapor density (Air = 1)** between 8 and 9

**Specific gravity (H<sub>2</sub>O = 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

Nalkylene:

Oxidizing agents.

Linear alkyl phenyl ethoxylates:

Oxidizing agents.

1-methoxy-2-(2-methoxyethoxy)ethane:

No information found.

## 11. Toxicological Information

### Product LD50 Values

Monoflow 5 Oral Rat LD50 (mg/kg): 46,000 mg/kg

Monoflow 5 Dermal Rabbit LD50 (mg/kg): No Data

### Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
Nalkylene	No	No	None
Linear alkyl phenyl ethoxylates	No	No	None
1-methoxy-2-(2-methoxyethoxy)ethane	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.

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

### 1-methoxy-2-(2-methoxyethoxy)ethane

When released into the soil, this material may biodegrade to a moderate extent. When released into the soil, this material is expected to quickly evaporate. When released into the soil, this material is expected to leach into the groundwater. This material has an experimentally-determined biocentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is not expected

to be subject to wet deposition. When released into the air, this material is expected to have a half-life of less than 1 day.

### 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		Reactivity	Acute	Chronic
Nalkylene	No	No	No	Yes	No
Linear alkyl phenyl ethoxylates	No	No	No	Yes	No
1-methoxy-2-(2-methoxyethoxy)ethane	Yes	No	No	Yes	No

#### **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 1 Reactivity 0**

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