

# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **In-Flow 2**

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

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

TELEPHONE NUMBER:  
TEL 813 626-6848  
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EMERGENCY NUMBER:  
CHEMTREC (800) 424-9300

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

| Component                       | % Comp  | CAS #      | EINECS #  | TLV (units)      |
|---------------------------------|---------|------------|-----------|------------------|
| Solvent Naphtha, Light Aromatic | 60 - 70 | 64742-95-6 | 265-199-0 | 50 ppm           |
| Linear alkyl phenyl ethoxylates | 20 - 40 | 9016-45-9  |           | none established |
| Butoxy Ethanol                  | 1 - 5   | 111-76-2   | 111-76-2  | 25 ppm (skin)    |

## 3. HAZARDS IDENTIFICATION

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

### EMERGENCY OVERVIEW - IMMEDIATE HAZARD

POISON! DANGER! UNDILUTED COMPONENTS CAUSE BURNS TO ANY AREA OF CONTACT. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. CONTACT WITH OTHER MATERIALS MAY CAUSE FIRE.

### EMERGENCY OVERVIEW - CHRONIC HAZARD WARNING

REPEATED APPLICATION OF INGESTION OF COMPONENTS OF REAGENT A CAUSES A PERMANENT BLUISH DISCOLORATION OF THE SKIN, CONJUNCTIVA, AND MUCOUS MEMBRANES. REPEATED INHALATION MAY CAUSE LUNG DISEASE.

### POTENTIAL HEALTH EFFECTS

#### INHALATION

SLIGHTLY TOXIC. Breathing of the mists, vapors or fumes may irritate the nose, throat, and lungs. May cause central nervous system depression or effects. May cause cardiac sensitization, including arrhythmias (irregular heart beats) and death due to cardiac arrest. Chronic exposure to high doses may damage the peripheral nerves, resulting in numbness or tingling in the extremities. See also "Reproductive Toxicity" and "Target Organ Statement" for further special toxic effects.

#### INGESTION

MODERATELY TOXIC. May cause irritation of the mouth, throat, and gastrointestinal tract. Aspiration into lungs may cause chemical pneumonia and lung damage. Aspiration symptoms may be delayed in onset by up to 24 hours. Exposure may also cause central nervous system symptoms similar to those listed under "Signs and Symptoms of Overexposure - Inhalation." See also "Reproductive Toxicity" and "Target Organ Statement" for further special toxic effects.

#### SKIN

SLIGHTLY IRRITATING. Contact may cause reddening, itching and inflammation. Repeated or prolonged skin contact may cause reddening, itching and inflammation. Defatting agent.

#### EYES

SLIGHTLY IRRITATING. Exposure to vapors, fumes or mists may cause irritation. Direct contact may cause irritation, redness, tearing, and blurred vision. Prolonged or repeated exposure may cause irritation and conjunctivitis.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

#### INHALATION

Symptoms may include sore throat, coughing, labored breathing, sneezing and burning sensation, depending on the concentration and duration of exposure. If CNS depression or effects occur, symptoms 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.

#### INGESTION

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

#### SKIN

Reddening, itching, and inflammation.

#### EYES

Irritation, redness, tearing, and blurred vision.

#### **CARCINOGENICITY**

Benzene, a known carcinogen, may be present in trace amounts, less than 50 ppm. Otherwise, there are no known or anticipated carcinogens present in Naphtha.

#### **MUTAGENICITY**

No information available.

#### **REPRODUCTIVE TOXICITY**

This product contains components which may cause adverse reproductive effects. Pregnant women may be at an increased risk from exposure. Consumption of alcoholic beverages may enhance toxic effects.

#### **TERATOGENIC EFFECTS**

This product contains components which may cause adverse developmental effects. Pregnant women may be at an increased risk from exposure. Consumption of alcoholic beverages may enhance toxic effects.

#### **ROUTES OF ENTRY**

Inhalation, ingestion, or skin contact.

#### **TARGET ORGAN STATEMENT**

Acute or chronic overexposure to this material or its components may cause systemic toxicity, including adverse effects to the following: kidney, liver, spleen, adrenals, thymus and central nervous system. Pre-existing medical conditions which may be aggravated by exposure include disorders of the skin, kidney, liver, cardiovascular and respiratory systems.

### **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. 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.

### **5. FIRE FIGHTING MEASURES**

|                            |       |                                  |         |
|----------------------------|-------|----------------------------------|---------|
| <b>FLASH POINT:</b>        | 124 F | <b>FLAMMABLE LIMITS:</b>         | ND      |
| <b>FLASH POINT METHOD:</b> | TCC   | <b>AUTOIGNITION TEMPERATURE:</b> | 865.4 F |

## **EXTINGUISHING MEDIA**

Dry powder, foam, carbon dioxide. (Water may be ineffective.)

## **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:**

Thermal decomposition products may include toxic oxides of nitrogen, sulfur, and carbon.

## **UNUSUAL FIRE AND EXPLOSION HAZARDS**

Flammable liquid. Vapor forms explosive mixtures with air. Vapor may travel considerable distances to ignition source 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**

Isolate hazard area and deny entry. Keep ignition sources out of area and shut off all ignition sources. Absorb spill with inert material (e.g. dry sand or earth) then place in a chemical waste container.

### **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. Isolate from incompatible materials (section 10).

**STORAGE TEMPERATURE:** Room Temperature

### **DISPOSAL**

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids).

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

### **AIRBORNE EXPOSURE LIMITS:**

**Component:** Solvent Naphtha, Light Aromatic

**ACGIH Threshold Limit Value (TLV):** 50 ppm

**OSHA Permissible Exposure Limit (PEL):**

### **ENGINEERING CONTROLS**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborn Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

### **RESPIRATORY PROTECTION**

If the exposure limit is exceeded, wear a supplied air, full-facepiece respirator, airtight hood, or full-facepiece self-contained breathing apparatus.

### **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 impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**OTHER CONTROL MEASURES**

N.A.

**9. PHYSICAL PROPERTIES**

|                                 |                  |                                      |                      |
|---------------------------------|------------------|--------------------------------------|----------------------|
| <b>Boiling Point</b>            | 340 F (171C)     | <b>Evaporation Rate</b>              | < 0.1 Bu-Acetate = 1 |
| <b>Melting Point</b>            | N.A.             | <b>Solubility in Water</b>           | 33% (V/V)            |
| <b>Vapor Pressure</b><br>mm Hg  | 2.0 mm Hg @ 25 C | <b>pH</b>                            | Neutral              |
| <b>Vapor Density</b><br>Air = 1 | 4.8              | <b>Specific Gravity</b><br>(H2O = 1) | 0.89                 |
| <b>% Volatile by Volume</b>     | 70               |                                      |                      |

**10. STABILITY AND REACTIVITY****STABILITY**

Stable under normal conditions of use.

**CONDITIONS TO AVOID**

Heat, sources or ignition, and incompatibles.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Combustion products include hazardous oxides or carbon, nitrogen, and sulfur.

**HAZARDOUS POLYMERIZATION**

Will not occur

**INCOMPATIBLES****Solvent Naphtha, Light Aromatic**

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.

**11. TOXICOLOGICAL INFORMATION****PRODUCT LD50 VALUES**

|           |                                    |          |
|-----------|------------------------------------|----------|
| In-Flow 2 | <b>Oral Rat LD50 (mg/kg):</b>      | 4.8 g/kg |
| In-Flow 2 | <b>Dermal Rabbit LD50 (mg/kg):</b> | N.A.     |

**COMPONENT CANCER LIST STATUS**

| <b>Component</b>                | <b>NTP Carcinogen</b> |                    |                      |
|---------------------------------|-----------------------|--------------------|----------------------|
|                                 | <b>Known</b>          | <b>Anticipated</b> | <b>IARC Category</b> |
| Solvent Naphtha, Light Aromatic | No                    | No                 | 3                    |
| Linear alkyl phenyl ethoxylates | No                    | No                 | None                 |
| Butoxy Ethanol                  | No                    | No                 | None                 |

**12. ECOLOGICAL INFORMATION****Solvent Naphtha, Light Aromatic**

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.

**13. DISPOSAL CONSIDERATIONS**

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids).

**14. TRANSPORT INFORMATION****D.O.T.**

**Proper Shipping Name:** Petroleum Products N.O.S

**Hazard Class:** 3

**UN Number:** 1268

**Packing Group:** 3

**I.A.T.A.**

**Proper Shipping Name:** Petroleum Products N.O.S.

**Hazard Class:** 3

**UN Number:** 1268

**Packing Group:** 3

**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**

| <b>Component</b>                | <b>Fire</b> | <b>Pressure</b> | <b>Reactivity</b> | <b>Acute</b> | <b>Chronic</b> |
|---------------------------------|-------------|-----------------|-------------------|--------------|----------------|
| Solvent Naphtha, Light Aromatic | Yes         | No              | No                | Yes          | Yes            |
| 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.

**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 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.