

# EGY-C361

## MATERIAL SAFETY DATA SHEET



Date Prepared: 06/14/2011  
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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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Product Name: **3% x 6% AR-AFFF EGY-C361**

Chemical Family: Surfactant mixture.  
Product Use/Description: Fire-fighting foam concentrate, aqueous film forming foam

Company Identification:  
Address: International Security & Safety Systems Co.  
49. Abbas AL-Akkad St, Nasr City,  
Cairo, EGYPT  
[www.isssystem.com](http://www.isssystem.com)

Phone: (202) 24017430 - 22602808

MSDS Preparer: Regulatory Compliance Specialist (202) 24017430

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**\*\*\*READ THE ENTIRE MSDS FOR A COMPLETE HAZARD ASSESSMENT\*\*\***

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

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#### CONTAINING HAZARDOUS AND/OR REGULATED COMPONENTS

Chemical Name	Percentage	CAS Number	OSHA PEL
Water	70-80%	7732-18-5	NO
Diethylene glycol monobutyl ether	4-7%	112-34-5	YES
Proprietary hydrocarbon surfactant	proprietary	proprietary	NO
Proprietary fluorosurfactant	proprietary	proprietary	NO
Polysaccharide gum	1-2%	proprietary	NO

### 3. HAZARDS IDENTIFICATION\*

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\*As defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. See Section 8 for exposure guidelines & Section 11 for toxicology and ingredient specific information.

#### **ROUTES OF EXPOSURE**

**Eye Contact:** This product is a severe eye irritant. Symptoms include stinging, tearing, redness, and swelling of eyes with possible tissue damage. Vapors may cause eye irritation.

**Skin Contact:** This product is a mild skin irritant. Symptoms include redness and burning of skin and allergic skin reaction with eczema and swelling. May be absorbed through the skin in non-toxic amounts.

**Ingestion:** Swallowing small amounts is not likely to be harmful. Swallowing large amounts may be harmful. May cause gastrointestinal irritation with nausea, vomiting, and diarrhea.

**Inhalation:** May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing,

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wheezing, shortness of breath and pulmonary edema.

**Chronic:** None known.

**Medical Conditions which May be Aggravated by Inhalation or Dermal Exposure:** Persons with unusual (hyper) sensitivity to chemicals (skin and lung conditions) may experience adverse reactions to this product.

**Target Organs:** Eye, skin, lungs.

**Relevant Routes of Exposure:** Eye, skin contact, inhalation.

**Interactions with Other Chemicals:** None known.

**Carcinogenic Potential:** This product contains no components present at concentrations equal to or greater than 0.1% listed by IARC, OSHA, NTP, or ACGIH as a carcinogen.

## 4. FIRST AID MEASURES

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**Eyes:** Immediately flush eyes thoroughly with water. Remove contact lenses after the initial 1-2 minutes and continue flushing for at least 15 minutes, including under lids. Seek immediate medical attention.

**Skin:** In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical attention if irritation or redness occurs. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

**Ingestion: Do not induce vomiting** without medical advice. Do not induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended. Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

**Inhalation:** If respiratory irritation or distress occurs remove victim to fresh air. Seek immediate medical attention if respiratory irritation or distress continues. Symptoms may be delayed. If breathing is difficult, give oxygen. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:** All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## 5. FIRE FIGHTING MEASURES

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**Flash Point -** No flash to boiling

**Lower Explosive Limit –** Not Applicable

**Upper Explosive Limit –** Not Applicable

**Hazardous Combustion Products –** Hydrocarbons, oxides of carbon, nitrogen and sulfur, hydrofluoric acid and other toxic products.

**Unusual Fire & Explosion Hazards –** Emits toxic fumes under fire conditions.

**Suitable Extinguishing Media –** Water, Foam, Carbon Dioxide, Dry Chemical, Halon

**Unsuitable Extinguishing Media –** Spattering and foaming of product may result from spraying water.

**Required Special Protective Measures for Fire-fighters -** Standard protection including self-contained breathing apparatus (SCBA) and full fire-fighting turn-out gear (Bunker gear).

**Auto Ignition Temperature –** Not Applicable

## 6. ACCIDENTAL RELEASE MEASURES

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**Personal Precautions:** Wear appropriate protective gear for the situation. See Personal Protection information in section 8.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways, and/or groundwater. Dike

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or retain dilution water or water from firefighting for later disposal. Follow procedure described below under cleanup and disposal of spills.

**Cleanup and Disposal of Spill:** Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of mist. Vacuum or sweep into an appropriate labeled storage container. Do not mix or contaminate with incompatible materials. Do not use water to flush product, as large volumes of foam will develop and slippery conditions may result. Cover container and remove from work area. Avoid creating mist. Ventilate area and wash spill site after material cleanup is complete.

**Environmental and Regulatory Reporting:** Runoff from fire control or dilution water may cause pollution. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

## 7. HANDLING AND STORAGE

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**Minimum/Maximum Storage Temperature:** Store at temperatures of 35°F - 120°F.

**Handling:** Avoid inhalation or contact with eyes, skin or clothing. Store in original container, or appropriate end-use device. If the material freezes, it may be thawed without loss of performance.

**Storage:** Store in an area that is dry, well ventilated and in tightly closed containers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Occupational Exposure Limits:**

No ACGIH TLV or OSHA PEL is assigned to this mixture. Minimize exposure in accordance with good hygiene practice.

**Engineering Controls:** Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure techniques may be used to effectively minimize employee exposures.

**Eye Protection:** When engaged in activities where product could contact the eye, wear, goggles, and or face shield.

**Skin Protection:** Skin contact should be minimized through use of latex gloves and suitable long sleeved clothing. Consideration must be given both to durability as well as permeation resistance.

**Respiratory Protection:** Use local or general ventilation to control exposures below applicable exposure limits or your risk assessment process. For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. NIOSH or MSHA approved respirators should be used in the context of respiratory protection program meeting the requirements of the OSHA respiratory protection standard [29 CFR 1910.134] to control exposures when ventilation or other controls are inadequate or discomfort or irritation is experienced. Respirator and/or filter cartridge selection should be based on American National Standards Institute (ANSI) Standards Z88.2 Practices for Respiratory Protection.

**Ventilation:** Use local exhaust or general dilution ventilation to control exposure within applicable limits.

**Other:** Have eyewash station in work area.

**Work Practice Controls:**

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

- (1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- (2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- (3) Wash exposed skin promptly to remove accidental splashes or contact with this material.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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**Appearance** – opaque thick liquid

**Odor** – very slight solvent odor

**Physical State** –thick liquid

**Specific Gravity (H<sub>2</sub>O=1)** – 1.012

**pH** 7.0-8.5

**Percentage Volatile by Volume:** Not evaluated

**Vapor Pressure** – Not Evaluated

**Density** – Not Evaluated

**Boiling Point** – 100°C (212°F)

**Melting Point** – 30° F

**Solubility in Water** – 100% Soluble

**Viscosity** 1500 min

## 10. STABILITY AND REACTIVITY

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**Stability:** Stable.

**Conditions to avoid:** Unintentional contact with water.

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Incompatibility with other materials:** Strong oxidizing agents

**Hazardous Decomposition:** Oxides of nitrogen, sulfur and carbon.

## 11. TOXICOLOGICAL INFORMATION

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**Toxicity Data for Product:** No data available.

### **Acute Eye and Skin Toxicity Data - Toxicological Information and Interpretation**

**Diethylene Glycol Monobutyl Ether CAS# 112-34-5**

**Eye irritation (Rabbits):** standard

**Skin Irritation (Rabbit):** LD 2700 mg/kg

**Acute Oral Effects (Rats):** LD 5660 mg/kg

**Inhalation Toxicity:** Not evaluated

**Sensitization:** Not evaluated

**Teratology:** Not evaluated

**Mutagenicity:** Not evaluated

**Reproduction:** Not evaluated

### **Chronic Toxicity:**

This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be “probable” or “suspected” human carcinogens.

## 12. ECOLOGICAL INFORMATION

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### **Ecological Data for Products:**

Chemical Oxygen Demand: 254,000 mg/l

Biological Oxygen Demand (20 day): 166,000 mg/l

Biodegradability (B.O.D./C.O.D.) 65%

Total Organic Carbon: 8,300 mg/l

LC50 (96 hour pimephales promelas) Not determined

LC50 (48 hour, daphnia magna) Not determined

**Mobility/Bioaccumulation:** No data available.

## 13. DISPOSAL CONSIDERATIONS

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**Waste Disposal:** Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Dispose of waste material according to local, state and federal regulations.

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**Container disposal:** Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue. Puncture or otherwise destroy empty container and dispose of in a facility permitted for nonhazardous waste.

## 14. TRANSPORTATION INFORMATION

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**Hazardous Materials Description/Proper Shipping Name (DOT) (TDG):** NOT REGULATED

**Hazard Class:** Not Applicable

**Identification Number:** Not Applicable

**Required Label Text:** Not Applicable

**Marine Transportation (IMO / IMDG):** Not regulated.

**Air Transportation (ICAO / IATA):** Not regulated.

**Hazardous Substances/Reportable Quantities:** Not Applicable

## 15. REGULATORY INFORMATION

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### **FEDERAL REGULATORY STATUS:**

**OSHA Hazard Communication Standard. 29 CFR 1910.1200:** This product is considered a "hazardous chemical" under this regulation, and should be included in the employer's hazard communication program.

**Reportable Quantities Under the Clean Water Act, CERCLA, and EPCRA. 40 CFR 117. 302 and 355:**  
The product contains no component regulated under section 304 (40 CFR 370).

### **Clean Air Act:**

Diethylene glycol butyl ether / CAS# 112-34-5 (as Glycol ethers) is listed as a hazardous air pollutant (HAP).

### **SARA Title III Section 313 EPCRA Toxic Chemical Release Inventory (TRI) Reporting. 40 CFR 372:**

Diethylene Glycol Monobutyl Ether CAS# 112-34-5 as a **glycol ether**

### **Status Under the Toxic Substances Control Act. 40 CFR 710:**

All chemicals comprising this product are listed on the TSCA Inventory.

### **SARA Title III Hazard Classes:**

Fire Hazard: NO

Reactive Hazard: NO

Release of Pressure: NO

Acute Health Hazard: YES

Chronic Health Hazard: NO

### **STATE REGULATIONS:**

#### **California:**

This product does not contain any components that are regulated under California Proposition 65.

#### **Pennsylvania Right To Know Components**

Diethylene glycol butyl ether / CAS# 112-34-5 can be found on the list (as Glycol ethers).

### **INTERNATIONAL REGULATIONS:**

#### **Canada DSL/NDSL:**

Diethylene glycol butyl ether / CAS# 112-34-5 is listed.

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## Canada - Ingredient Disclosure List:

Diethylene glycol butyl ether CAS# 112-34-5 is listed.

**Status under OSHA Hazard Communication Standard, 29 CFR 1910.1200:** This product is considered a "hazardous chemical" under this regulation, and should be included in the employer's hazard communication program.

## 16. OTHER INFORMATION

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### Label Requirements:

<b><u>WARNING!</u> EYE SKIN RESPIRATORY IRRITANT CNS DEPRESSION WEAR EYE, SKIN AND RESPIRATORY PROTECTION</b>
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**NFPA Ratings:** Health: 1 Flammability: 1 Reactivity: 0

(NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme)

**\*\*\*Personal Protection rating to be supplied by user depending on use conditions\*\*\***

*We assigned NFPA and HMIS® ratings to this product based on the hazards of its ingredient(s). Because the customer is most aware of the application of the product, the customer must ensure that the proper personal protective equipment (PPE) is provided consistent with information contained in the product MSDS. This information is intended solely for the use of individuals trained in the particular hazard rating system. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.*

### ADDITIONAL INFORMATION:

*The information contained in this document is given in good faith and based on our current knowledge. It is only an indication and is in no way binding, notably as regards infringement of, or prejudice to third parties through the use of our products. Chemguard guarantees that its products comply with its sales specifications. This information must on no account be used as a substitute for necessary prior tests which alone can ensure that a product is suitable for a given use. Users are responsible for ensuring compliance with local legislation and for obtaining the necessary certifications and authorizations.*

END OF MSDS