

## MATERIAL SAFETY DATA SHEET

|                                       |                 |
|---------------------------------------|-----------------|
| Identity (as used on label and list): | SIL-ACT™ ATS-22 |
|---------------------------------------|-----------------|

| <b>Section 1</b>   |   |
|--|---|
| Manufacturer's Name<br><b>Advanced Chemical Technologies, Inc.</b>                     | Emergency Telephone Number<br><b>(800) 255-3924</b>       |
| Address<br><b>100 West Wilshire Blvd., Suite C-1<br/>Oklahoma City, Oklahoma 73116</b> | Telephone Number for Information<br><b>(405) 843-2585</b> |
| Date Prepared: February 1, 2010  |   |

| <b>Section 2 - Hazardous Ingredients / Identity Information</b>   |                |                |               |
|---|----------------|----------------|---------------|
| Hazardous Components : Specific Chemical Identity; Common Name(s) | OSHA PEL       | ACGIH TLV      | Other Limits  |
| <b>Alkoxysilanes - CAS No. 18395-30-7</b> >20%                    | <b>200 ppm</b> | <b>200 ppm</b> | <b>200 pm</b> |
| <b>Isopropanol - CAS No. 67-63-0</b> >10%                         | <b>400 ppm</b> | <b>400 ppm</b> | <b>NE</b>     |
| <b>Methanol - CAS No. 67-56-1</b> >20%                            | <b>200 ppm</b> | <b>200 ppm</b> | <b>NE</b>     |

| <b>Section 3 - Physical / Chemical Characteristics</b> |   |                             |                   |
|--|---|-----------------------------|-------------------|
| Boiling Point:   | <b>82C</b>                              | Specific Gravity:           | <b>0.81 @ 25C</b> |
| Vapor Pressure (mm Hg)                                 | <b>33 mm</b>                            | Percent Volatile by Volume: | <b>&gt;99%</b>    |
| Vapor Density (Air = 1)                                | <b>2.1</b>                              | Evaporation Rate:           | <b>&lt;1</b>      |
| Solubility in Water:                                   | <b>Reacts with Water</b>                | pH (Concentrate):           | <b>NA</b>         |
| Appearance and Odor:                                   | <b>Liquid, Colorless - Alcohol Odor</b> |                             |                   |

| <b>Section 4 - Fire and Explosion Hazard Data</b>   |                   | <b>FLAMMABILITY: NFPA 3</b> |           |
|---|-------------------|-----------------------------|-----------|
| Flash Point (Method Used):<br><b>53F (Closed Cup)</b>   | Flammable Limits: | LEL                         | UEL       |
|   |                   | <b>NE</b>                   | <b>NE</b> |
| Extinguishing Media: <b>Dry Chemical, Polymer Foam, Carbon Dioxide</b>  |                   |                             |           |
| Special Fire Fighting Procedures:<br><b>Self Contained Breathing Apparatus (SCBA) and Protective Clothing Should be Worn with Fires Involving Chemicals</b> |                   |                             |           |
| Unusual Fire and Explosion Hazards: <b>None Known</b>   |                   |                             |           |

| <b>Section 5 - Reactivity Data</b>   |                |          | <b>REACTIVITY: NFPA 1</b> |
|--|----------------|----------|---------------------------|
| Stability:   | Unstable:      |          | Conditions to Avoid:      |
|  | Stable:        | <b>X</b> | <b>NA</b>                 |
| Incompatibility: <b>Material Reacts with Water, Strong Oxidizers and Reducers</b>                        |                |          |                           |
| Hazardous Decomposition or By-Products:<br><b>Silicon Dioxide, Carbon Dioxide and other Hydrocarbons</b> |                |          |                           |
| Hazardous Polymerization:  | May Occur      |          | Conditions to Avoid:      |
|  | Will Not Occur | <b>X</b> | <b>NA</b>                 |

VOC <720 g/L Method 24/D-5095 as applied. Exceedance fee paid to meet Federal VOC limit of <600g/L.



### **Section 9- Handling and Storage**

Use with adequate ventilation. When product is exposed to water or humid air, product evolves flammable methyl alcohol. To control exposure within Section 8 guidelines, provide ventilation during use or use air-supplied or self-contained breathing apparatus. Do not breathe vapor. Keep container closed. Avoid eye and skin contact. Do not take internally.

Static electricity will accumulate and may ignite vapors. Prevent a possible fire hazard by bonding and grounding or inert gas purge. Keep container closed and store away from water or moisture. Keep container closed and away from heat, sparks, and flame.

### **Section 10- Toxicological Information**

#### **Special hazard information on components**

No known applicable information.

### **Section 11- Ecological Information**

#### **Environmental Fate and Distribution**

Complete information in not yet available.

#### **Environmental Effects**

Complete information in not yet available.

#### **Fate and Effects in Waste Water Treatment Plants**

Complete information in not yet available.

#### Ecotoxicity Classification Criteria

| Hazard parameters (LC50 or EC50) | High  | Medium          | Low   |
|----------------------------------|-------|-----------------|-------|
| Acute Aquatic Toxicity (mg/L)    | <=1   | >1 and <=100    | >100  |
| Acute Terrestrial Toxicity       | <=100 | >100 and <=2000 | >2000 |

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the exotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

### **Section 12- Disposal Considerations**

#### **RCRA Hazard Class (40 CFR 261)**

When a decision is made to discard this material, as received, is it classified as a hazardous waste? Yes

Characteristic Waste:

Ignitable: D001

State or local laws may impose additional regulatory requirements regarding disposal.

Call Advanced Chemical Technologies, Inc., (405) 843-2585 if additional information is required.

**Section 13- Transport Information****DOT Road Shipment Information (49 CFR 172.101)**

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.  
Hazard Technical Name: Alkoxysilane, Isopropanol, Methanol  
Hazard Class: 3  
UN/NA Number: UN1993  
Packing Group: II  
Hazard Label(s): FLAMMABLE LIQUID LABEL

**Ocean Shipment (IMDG)**

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.  
Hazard Technical Name: Alkoxysilane, Isopropanol, Methanol  
Hazard Class: 3  
UN/NA Number: UN1993  
Packing Group: II  
Hazard Label(s): FLAMMABLE LIQUID LABEL  
Marine Pollutant: Not Applicable

**Air Shipment (IATA)**

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.  
Hazard Technical Name: Alkoxysilane, Isopropanol, Methanol  
Hazard Class: 3  
UN/NA Number: UN1993  
Packing Group: II  
Hazard Label(s): FLAMMABLE LIQUID LABEL

Call Advanced Chemical Technologies, Inc., (405) 843-2585 if additional information is required.

**Section 14- Regulatory Information**

Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910, 1200

TSCA Status: All Chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances

**EPA SARA Title III Chemical Listings****Section 302 Extremely Hazardous Substances:**

None.

**Section 304 CERCLA Hazardous Substances:**

| <u>CAS Number</u> | <u>Wt%</u> | <u>Component Name</u> |
|-------------------|------------|-----------------------|
| 67-56-1           | 2.0        | Methyl alcohol        |

**Section 312 Hazard Class:**

Acute: Yes  
Chronic: Yes  
Fire: Yes  
Pressure: No  
Reactive: No

**Section 313 Toxic Chemicals:**

| <u>CAS Number</u> | <u>Wt%</u> | <u>Component Name</u> |
|-------------------|------------|-----------------------|
| 67-56-1           | 2.0        | Methyl alcohol        |

**Supplemental State Compliance Information****California**

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm.

None known.

**Section 15- Other Information**

Prepared by: Advanced Chemical Technologies, Inc.

THIS DATA IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.