ANTIFOAM FD-30 is a silicone based defoamer utilizing the latest technology involving silicone emulsification, emulsion stability control and solubilized silicone through use of glycol copolymers. The net result is a product with outstanding defoaming and antifoam capabilities but with free rinsing properties that minimize buildup of particles and scum during processing and provide free rinsing from goods in order to avoid spoilage, flammability and dye resist problems.

ANTIFOAM FD-30 is effective as a defoaming agent when used with a wide range of surfactant systems. It functions well in anionic, nonionic and cationic systems. Range of application varies with each surfactant system and the requirements for foam reduction. A range of application for the product is 0.05 to 0.25% on weight of liquor.

**Typical Characteristics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Pourable white paste</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Disperses readily over a wide temperature and concentration range</td>
</tr>
<tr>
<td>pH 1%</td>
<td>8.5 – 9.5</td>
</tr>
<tr>
<td>Weight per Gallon</td>
<td>8 pounds</td>
</tr>
<tr>
<td>Storage Stability</td>
<td>Excellent under normal conditions of warehousing. Freezing should be avoided.</td>
</tr>
</tbody>
</table>

All data is believed to be correct; however, should not be accepted as a guarantee of accuracy without confirming tests in your own plant or laboratory.
Material Safety Data Sheet
ANTIFOAM FD-30

SECTION I - IDENTIFICATION

MANUFACTURER'S NAME: MANUFACTURERS CHEMICALS, LLC
MANUFACTURER'S ADDRESS: 4325 OLD TASSO ROAD | P.O. BOX 2788 CLEVELAND, TN 37312
EMERGENCY PHONE NUMBER: 423-476-6666 OR CHEMTREC 800-424-9300
DATE PREPARED: NOVEMBER 22, 1989
REVISED DATE: OCTOBER 13, 2014
PRODUCT NAME: ANTIFOAM FD-30
CHEMICAL DESCRIPTION: SILICONE EMULSION.
PRODUCT USE: SILICONE BASED DEFOAMER FOR USE BY THE TEXTILE PROCESSING INDUSTRY.

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENT PERCENT TLV (UNITS) PRODCAS #
NONE

SECTION III - PHYSICAL DATA

BOILING POINT: 212F
pH 1% SOLUTION: 6.5 TO 7.5
SOLUBILITY IN WATER: TRANSLUCENT EMULSION.
% MOISTURE: 85
BROOKFIELD VISC. @ 75F 750 cps
SPECIFIC GRAVITY: 1.002
APPEARANCE AND ODOR: OPAQUE WHITE LIQUID WITH A LIGHT ODOR.
MISC. PHYSICAL DATA: N/A

SECTION IV - FIRE AND EXPLOSION DATA

FLASHPOINT: >212F (TCC)
FIRE POINT: N/A
EXTINGUISHING MEDIA: PRODUCT WILL NOT BURN UNTIL ALMOST ALL THE WATER IS DRIVEN OFF; HOWEVER, USE EXTINGUISHING MEDIA AS APPROPRIATE FOR THE MATERIALS IN THE SURROUNDING FIRE.
SPECIAL FIRE FIGHTING PROCEDURES: WEAR A SELF CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE DEMAND OR OTHER POSITIVE DISPLACEMENT MODE. WATER SPRAY SHOULD BE USED TO KEEP DRUMS COOL IF THEY ARE INVOLVED IN A FIRE SINCE HEAT WILL CAUSE THE PRODUCT TO EXPAND AND POSSIBLY CAUSE THE DRUMS TO EXPLODE FROM INTERNAL PRESSURE.
SECTION V - REACTIVITY DATA

CHEMICAL STABILITY: ...........STABLE
CONDITIONS TO AVOID:........N/A
INCOMPATIBILITY: STRONG OXIDIZERS.
DECOMPOSITION PRODUCTS: CARBON DIOXIDE, CARBON MONOXIDE AND VARIOUS HYDROCARBONS MAY BE RELEASED DURING A FIRE.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

SECTION VI - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: NOT ESTABLISHED.
OVER EXPOSURE EFFECTS/ROUTES OF ENTRY:
CAN CAUSE EYE IRRITATION. PROLONGED OR REPEATED CONTACT WITH THE UNDILUTED PRODUCT CAN CAUSE SKIN DRYNESS OR IRRITATION. SWALLOWING THIS PRODUCT MAY CAUSE GASTROINTESTINAL IRRITATION, DIARRHEA, NAUSEA, AND VOMITING.
FIRST AID PROCEDURES:
FLUSH EYES WITH CLEAN WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION. REMOVE CONTAMINATED CLOTHING AND WASH AFFECTED SKIN AREAS WITH MILD SOAP AND WATER. IN CASE OF INTOXICATION, GIVE OXYGEN. AVOID MOUTH-TO-MOUTH RESUSCITATION.
CHRONIC OVER EXPOSURE EFFECTS:
N/A
CARCINOGENICITY INFORMATION:
NO COMPONENTS OF THIS PRODUCT ARE LISTED AS A CARCINOGEN BY IARC, NTP, OSHA, OR ACGIH.

SECTION VII - SPILL OR LEAK PROCEDURE

FOR SPILL:
CONTAIN SPILL AND SALVAGE AS MUCH MATERIAL AS POSSIBLE BY PUMPING TO A SALVAGE TANK OR DRUM. PICK UP REMAINING MATERIAL WITH A SUITABLE ABSORBENT.
WASTE DISPOSAL METHOD:
DISPOSE OF ONLY BY METHODS APPROVED BY AND USED IN ACCORD WITH LOCAL, STATE AND FEDERAL REGULATIONS.
SECTION VIII - SPECIAL PROTECTION

RESPIRATORY PROTECTION:
NOT NORMALLY REQUIRED.

VENTILATION:
LOCAL EXHAUST, GENERAL MECHANICAL.

PROTECTIVE GLOVES:
NEOPRENE OR OTHER CHEMICAL RESISTANT GLOVES.

EYE PROTECTION:
CHEMICAL SPLASH GOGGLES.

OTHER PROTECTIVE EQUIPMENT:
SAFETY SHOWER / EYE BATH.

SECTION IX - SPECIAL PRECAUTIONS

SPECIAL INFORMATION:
STORE AT NORMAL TEMPERATURES AND CONDITIONS OF WAREHOUSING. KEEP CONTAINER CLOSED WHEN NOT IN USE. AVOID ALLOWING PRODUCT TO FREEZE. WASH CONTAMINATED CLOTHING BEFORE RE-WEARING.

DOT HAZARD CLASS:..........N/A
DOT SHIPPING NAME: ..........N/A
UN NUMBER:..........................N/A
NA NUMBER:..........................N/A

ADDITIONAL REGULATORY INFORMATION: N/A

<table>
<thead>
<tr>
<th>HMIS CODES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>1</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>1</td>
</tr>
<tr>
<td>REACTIVITY</td>
<td>0</td>
</tr>
<tr>
<td>PERS. PROTECTION</td>
<td>B</td>
</tr>
</tbody>
</table>

ALL DATA ARE BELIEVED TO BE CORRECT, HOWEVER, THIS SHOULD NOT BE ACCEPTED AS A GUARANTEE OF THEIR ACCURACY WITHOUT CONFIRMING TESTS IN YOUR OWN PLANT OR LABORATORY. THE DATA RELATES ONLY TO THE MATERIAL AS SUPPLIED AND DOES NOT RELATE TO COMBINATIONS WITH OTHER MATERIALS.

MC-104-66A
1-0564-1