

## 1 - Product and Company Identification

**Product name:** Mulsifan RT 11

**Product type/usage/industry:** Surfactant raw material

**Manufacturer/Supplier Information:** Zschimmer and Schwarz, Inc.  
70 GA Hwy. 22 W  
Milledgeville, GA 31061  
Phone: (478) 454-1942

**Emergency contact:** **Company:** (478) 454-1942  
**CHEMTREC (24HR):** (800) 424-9300

## 2 - Hazards Identification

**Classification of the substance or mixture:** Classification of this substance/mixture is based on  
**29 CFR 1910.1200/HazCom 2012 (GHS-US)**

|                        |            |      |                       |
|------------------------|------------|------|-----------------------|
| Acute Aquatic Toxicity | Category 2 | H401 | Toxic to aquatic life |
|------------------------|------------|------|-----------------------|

### Labelling:

#### Signal Word:

None

#### Hazard Symbols:

None

**Precautionary Statements:** P262: Do not get in eyes, on skin, or on clothing.  
P273: Avoid release to the environment.  
P302+352: IF ON SKIN: Wash with plenty of soap and water.  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.  
P314: Get medical advice/attention if you feel unwell.

#### **Key to Hazard Categories:**

1=Severe Hazard      2=Serious Hazard      3=Moderate Hazard      4=Slight Hazard      5=Minimal Hazard

## 3 - Composition/Information on Ingredients

| <u>CAS Number</u> | <u>Material or component</u> | <u>Avg % weight</u> |
|-------------------|------------------------------|---------------------|
| Proprietary       | Ethoxylated alcohol          | 100%                |

This is not intended to be a complete compositional disclosure. Information provided pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200/ HazCom 2012). See Section 8 for Exposure Limits, if any.

#### **4 - First Aid Measures**

|                    |  |
|--------------------|--|
| <b>Eyes:</b>       | Immediately flush with gentle but large stream of water for 15 min, lifting upper and lower eyelids occasionally. Get medical advice/attention if irritation persists.   |
| <b>Skin:</b>       | Wash affected area with soap and water. If itching or redness develops, seek medical attention. Contaminated clothing should be removed immediately and washed before reuse. Contaminated shoes should be discarded. |
| <b>Inhalation:</b> | Move the person to fresh air. If breathing becomes difficult, contact a physician.   |
| <b>Ingestion:</b>  | Do not induce vomiting. If large amounts were swallowed, give water to rinse mouth and drink. Get medical attention if you feel unwell.  |

#### **5 - Firefighting Measures**

|   |  |
|---|--|
| <b>Extinguishing Media:</b>                           | Water spray, dry chemical, alcohol foam, or carbon dioxide.  |
| <b>Unsuitable Extinguishing Media:</b>                | Full water jet.  |
| <b>Special Protective Equipment for Firefighters:</b> | Self-contained breathing apparatus and protective clothing when fighting any chemical fire.  |
| <b>Unusual Fire &amp; Explosion Hazards:</b>          | In case of fire, containers may explode from internal pressure. Cool with water. May emit toxic fumes of CO and CO <sub>2</sub> under fire conditions. |

#### **6 - Accidental Release Measures**

|   |   |
|---|---|
| <b>Personal precautions:</b>                | Avoid contact with skin and eyes. Avoid breathing dusts. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Keep away from heat and sources of ignition.              |
| <b>Environmental precautions:</b>           | P273: Avoid release to the environment<br>Limit leakage with earth or sand. Do not discharge into the drains/surface water/groundwater. Dispose of absorbed material in accordance with local, state and federal regulations. |
| <b>Methods for Containment/Cleaning Up:</b> | Take up mechanically (e.g. shovel). Dispose of material in accordance with local, state, and federal regulations.   |

#### **7 - Handling and Storage**

|   |  |
|---|--|
| <b>Handling:</b>  | P261: Avoid breathing dusts of product<br>P262: Do not get in eyes, on skin, or on clothing<br>P264: Wash thoroughly after handling<br>P280: Wear protective gloves/eye protection |
| <b>Storage:</b>   | P402+404: Store in a dry place. Store in a closed container<br>P403+233: Store in a well-ventilated place. Keep container tightly closed<br>Protect from moisture. Keep cool.      |
| <b>Special Packaging Requirements:</b>                      | None known.  |
| <b>Incompatible Materials or Fire/Explosion Protection:</b> | None known.  |

**8 - Exposure Controls/Personal Protection**

**Personal Protective Equipment (PPE):**

**Hand Protection:** Use impervious gloves.  
**Eye Protection:** Wear safety glasses with side shields or full face shield.  
**Skin Protection:** Wear protective clothing.  
**Respiratory Protection:** Recommended if ventilation is limited.

**Engineering Measures/Controls:**

**Ventilation:** Ensure adequate ventilation to maintain product at acceptable airborne levels.  
**Other measures:** Eye-wash station.

**Exposure Limits/Guidelines:**

| Material | CAS # | BASIS | TYPE | VALUE |
|----------|-------|-------|------|-------|
| None     |       |       |      |       |

**9 - Physical and Chemical Properties**

|   |                            |  |                |
|---|----------------------------|--|----------------|
| <b>Form and Appearance:</b>                 | Bright yellow opaque solid | <b>Odor:</b>                               | Characteristic |
| <b>pH:</b>                                  | ~ 6.0 @ 10%                | <b>Odor Threshold:</b>                     | N/D            |
| <b>Boiling Point:</b>                       | >374°F (190°C)             | <b>Melting/Freezing point:</b>             | ~104°F (40°C)  |
| <b>Vapor Pressure:</b>                      | < 1 mbar @ 20°C            | <b>Vapor Density (Air=1):</b>              | N/D            |
| <b>Flash Point:</b>                         | > 386°F (197°C) (COC)      | <b>Evaporation Rate:</b>                   | N/D            |
| <b>UEL:</b>                                 | N/A                        | <b>LEL:</b>                                | N/A            |
| <b>Viscosity:</b>                           | ~85 cps @ 40°C             | <b>Solubility in Water:</b>                | Miscible       |
| <b>Octanol/Water Partition Coefficient:</b> | N/D                        | <b>Specific Gravity/<br/>Bulk Density:</b> | ~ 1.01 @ 40°C  |
| <b>Auto-ignition temperature:</b>           | N/D                        | <b>Decomposition Temperature:</b>          | N/D            |
| <b>Volatile content:</b>                    | N/D                        | <b>VOC Data:</b>                           | N/D            |

**10 - Stability and Reactivity**

**Chemical Stability:** Product is stable under ordinary conditions of use and storage.  
**Hazardous Polymerization:** Will not occur.  
**Conditions to Avoid:** Exposure to moist air or water, excessive heat.  
**Incompatible Materials:** None known.  
**Hazardous Decomposition Products:** Extremely high temperatures may produce CO<sub>x</sub>.

**11 - Toxicological Information**

**Acute Data:**

**Principle Routes of Exposure:** Eye contact, skin contact, ingestion, inhalation (mist).

**Acute Toxicity**

| Route of exposure: | Test type: | Species: | Results:     | Comments:                         |
|--------------------|------------|----------|--------------|-----------------------------------|
| Oral               | LD50       | Rat      | > 2000 mg/kg | H303: May be harmful if swallowed |

**Irritation and Corrosion**

| Target organ: | Species: | Results:       | Comments:                       |
|---------------|----------|----------------|---------------------------------|
| Eyes          | Rabbit   | Non-irritating | -                               |
| Skin          | Rabbit   | Non-irritating | Has a degreasing effect on skin |

**Sensitization**

| Target organ: | Species: | Results:         | Comments: |
|---------------|----------|------------------|-----------|
| Skin          | Human    | No effects known | -         |

**Specific Target Organ Toxicity – Single Exposure**

| Target organ: | Species: | Results: | Comments: |
|---------------|----------|----------|-----------|
| NDA           |          |          | -         |

**Chronic Data:**

**Carcinogenicity**

| IARC | NTP | ACGIH | OSHA |
|------|-----|-------|------|
| No   | No  | No    | No   |

**Mutagenicity:** NDA

**Reproductive Effects:** NDA

**Target Organ Effects:** NDA

**12 - Ecological Information**

**Acute Aquatic Toxicity**

| Species:      | Test type: | Exposure time: | Results:    | Comments:                   |
|---------------|------------|----------------|-------------|-----------------------------|
| Rainbow trout | LC50       | 96h            | NDA         | -                           |
| Daphnia magna | EC50       | 48h            | 1 – 10 mg/l | H401: Toxic to aquatic life |

**Environmental Fate**

|                                   |   |
|-----------------------------------|---|
| <b>Persistence/Degradability:</b> | Product is readily biodegradable.<br>>60% after 10d |
| <b>COD/BOD5:</b>                  | NDA   |
| <b>Bioaccumulation Potential:</b> | NDA   |
| <b>Mobility in Soil:</b>          | NDA   |
| <b>Other Adverse Effects:</b>     | NDA   |

**13 - Disposal Considerations**

|                   |  |
|-------------------|--|
| <b>Product:</b>   | Dispose of absorbed material/content and/or container in accordance with local, state, federal and/or international regulations. |
| <b>Packaging:</b> | NDA  |

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**14 - Transport Regulations**

**US DOT Regulations (Land Transport):**

|                              |                |
|------------------------------|----------------|
| <b>Proper Shipping Name:</b> | Not regulated. |
| <b>Hazard Class:</b>         | Not regulated. |
| <b>UN Number:</b>            | Not regulated. |
| <b>Packing Group:</b>        | Not regulated. |
| <b>Label Required:</b>       | Not regulated. |
| <b>Other Information:</b>    | Not regulated. |

**IATA/ICAO Regulations (Air Transport):**

|                              |                |
|------------------------------|----------------|
| <b>Proper Shipping Name:</b> | Not regulated. |
| <b>Hazard Class:</b>         | Not regulated. |
| <b>UN Number:</b>            | Not regulated. |
| <b>Packing Group:</b>        | Not regulated. |
| <b>Label Required:</b>       | Not regulated. |
| <b>Other Information:</b>    | Not regulated. |

**IMDG/IMO Regulations (Maritime Transport):**

|                                |                |
|--------------------------------|----------------|
| <b>Proper Shipping Name:</b>   | Not regulated. |
| <b>Hazard Class:</b>           | Not regulated. |
| <b>UN Number:</b>              | Not regulated. |
| <b>Packing Group:</b>          | Not regulated. |
| <b>Label Required:</b>         | Not regulated. |
| <b>EMS Number:</b>             | Not regulated. |
| <b>Segregation Groups:</b>     | Not regulated. |
| <b>Marine Pollutant (Y/N):</b> | Not regulated. |
| <b>Other Information:</b>      | Not regulated. |

**15 - Regulatory Information**

**Domestic Regulations**

**Components requiring notification**

| SARA 302 (TPQ) | SARA 304 (RQ) | SARA 313 | CERCLA (RQ) | CAA 112(b) HAPS | CAA 112(r) |
|----------------|---------------|----------|-------------|-----------------|------------|
| None           | None          | None     | None        | None            | None       |

**SARA 311/312 Hazard Categorization:** None

**State Information**

**California Proposition 65:** May contain traces (< 100 ppm) of the following components known to the State of California to cause cancer, birth defects, or other reproductive harm.

Ethylene Oxide (75-21-8)  
1,4-Dioxane (123-91-1)

**State Right to Know/  
Hazardous Substance List  
Information:** The following chemicals are present on one or more Right to Know/Hazardous Substance Lists for the states of MA, MN, NJ, PA and RI.

Ethylene Oxide (75-21-8)  
1,4-Dioxane (123-91-1)

This is not an exhaustive list. For information on listings in other states, please consult that state's RTK/HSL.

**Chemical Inventories**

| United States (TSCA) | EUROPE (EINECS/ELINCS/NLP) | Australia (AICS) | Philippines (PICCS) | Canada |      | Korea (ECL) | Japan (ENCS/ISHL) | China (IECSC) | New Zealand (NZIoC) |
|----------------------|----------------------------|------------------|---------------------|--------|------|-------------|-------------------|---------------|---------------------|
|                      |                            |                  |                     | DSL    | NDSL |             |                   |               |                     |
| Yes                  | Yes                        | Yes              | Yes                 | Yes    | No   | Yes         | Yes               | Yes           | Yes                 |

**16 - Additional Information**

**Key to Abbreviations:**

NDA - No data available    N/D - Not determined    N/A - Not applicable    N/E - Not established

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