Section I - Product Identification

A solution of Sudan III in reagent alcohol and acetone.

Section II - Hazards Identification

Danger: Highly flammable liquid and vapor. Keep away from heat, sparks, open flames and hot surfaces. No smoking. Keep container tightly closed. Use only non-sparking tools. Take precautions against static discharge. Wear protective clothes and eye protection. In case of skin contact immediately remove all contaminated clothing. Rinse with water or shower. In case of fire, use fire extinguishers approved for alcohol fires.

Safety Ratings

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate</td>
<td>Extremely flammable liquid and vapor</td>
<td>Slight</td>
<td>Slight</td>
</tr>
</tbody>
</table>

Recommended safety equipment: safety goggles, lab coat and proper gloves

Storage: Keep cool, away from sources of ignition in a well ventilated area.

NFPA Ratings

Health = 2     Flammability = 4     Reactivity = 1

Potential Health Effects

The vapor and liquid are highly flammable. Acetone is irritating to the skin, eyes and mucous membranes. Ingestion will result in coma and death. The toxicology of this compound have not been completely examined. It is presumed that the toxicity of this item is similar to other ketones.

Inhalation: Irritating

Ingestion: While the toxicity of this compound is low, large doses may cause nausea, vomiting, diarrhea, etc.

Skin contact: Acetone is a strong skin irritant and a defatting agent.

Eye contact: May be irritating.

Chronic Exposure: May cause cracking of skin and/or dermatitis.

Aggravation of preexisting conditions: Preexisting eye, skin, and respiratory conditions may be aggravated

Section III - Composition/Information on Components

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS#</th>
<th>OSHA Pel</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>750 ppm</td>
<td>1000 ppm</td>
<td></td>
<td>50% v/v</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
<td></td>
<td>31.5% v/v</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>400 ppm</td>
<td>400 ppm</td>
<td>STEL</td>
<td>1.8% v/v</td>
</tr>
<tr>
<td>Methyl alcohol</td>
<td>67-56-1</td>
<td>200 ppm</td>
<td>200 ppm</td>
<td></td>
<td>1.8% v/v</td>
</tr>
<tr>
<td>Sudan III</td>
<td>85-86-9</td>
<td>--------</td>
<td>---------</td>
<td></td>
<td>0.1% w/v</td>
</tr>
</tbody>
</table>

Section IV - First Aid Measures

Inhalation: Remove from source of exposure and get medical attention for any breathing difficulty.

Ingestion: Do not induce vomiting. Aspiration of acetone into the lungs may produce death. Get immediate medical attention even if symptoms improve.

Skin Contact: Wash affected area with soap and water. Get medical advice if irritation develops.

Eye Contact: Rinse thoroughly with running water. Get medical advice if irritation develops.
Section V - Fire Fighting Measures

*Flash point:* -18 °C (0 °F) TCC  
*Flammable Limits:* LEL 3%  UEL 13%  
*Fire:* Because of the low flash point acetone is a severe fire Hazard.  
*Explosion:* Vapor in air may form an explosive mixture. Sensitive to static discharge.  
*Fire Extinguishing Media:* Alcohol foam, carbon dioxide or dry chemical.  
*Special information:* Pyrolysis will release corrosive oxides.

Section VI - Accidental Release Measures

Remove sources of ignition, absorb with a suitable absorbent and store in a suitable container for disposal.

Section VII - Handling and Storage

Store in a cool, well ventilated place. Store in a closed container away from sources of ignition. Drums should be bonded and grounded to avoid static discharge.

Section VIII - Exposure Control/Personal Protection

*Airborne Exposure Limits:* See section III.  
*Ventilation System:* Local exhaust such as explosion proof chemical fume hoods are recommended. When required, Refer to the ACGIH document, “Industrial Ventilation, a Manual of Recommended Practices” for details about ventilation.  
*Personal Respirator:* Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.  
*Skin protection:* Protective gloves and clothing are recommended.  
*Eye Protection:* Laboratory safety goggles or similar products are required as part of good laboratory practice.

Section IX - Physical and Chemical Properties

- *Boiling Point:* 56 °C @ 760 mm Hg  
- *Density:* 0.84 g/ml  
- *Vapor pressure (mm Hg):* Unknown  
- *Evaporation Rate (n-butyl alcohol = 1):* Unknown  
- *Vapor Density (air = 1):* Unknown  
- *Solubility:* Infinitely miscible with water  
*Appearance and Odor:* A clear red liquid with the characteristic odor of acetone.

Section X - Stability and Reactivity

*Stability:* Stable.  
*Hazardous Decomposition Products:* Nothing unusual.  
*Hazardous polymerization:* Will not occur.  
*Incompatibilities:* Store away from oxidizers.  
*Conditions to avoid:* Sources of ignition.

Section XI - Toxicological Information

For pure acetone:  
Oral mouse LD$_{50}$ = 3000 mg/kg  
Inhalation Rat LC$_{50}$ = 16000 ppm/ Hr

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Known Carcinogenicity?</th>
<th>NTP?</th>
<th>Anticipated?</th>
<th>IARC Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>3</td>
</tr>
<tr>
<td>Ethanol</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>none</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>3</td>
</tr>
<tr>
<td>Methanol</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>none</td>
</tr>
<tr>
<td>Sudan III</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>none</td>
</tr>
</tbody>
</table>
Section XII - Ecological Information

*Environmental Fate:* Acetone is biodegradable and not expected to accumulate in the environment.

*Environmental Toxicity:* Acetone is not expected to be toxic to fish. Ethanol evaporates quickly and is not expected to bioaccumulate. The material is removed from the air by dry and liquid adsorption. The half-life for ethanol in the atmosphere is one to ten days.

Section XIII - Disposal Considerations

Incineration at a licensed chemical disposal facility is the preferred disposal method. Local governments often restrict the amounts of flammable liquids that may be flushed down the drain. Dispose of contents and container in accord with all applicable regulations.

Section XIV - Transportation information

*DOT Shipping name:* Acetone  
*DOT Hazard Class:* 3  
*Packing Group:* II  
*DOT Hazard Label:* Flammable Liquid  
*DOT Identification Number:* UN 1090  
Bottles smaller than 32 Fl. Oz. are eligible to be shipped under ORM-D or limited quantity exemptions [49 CFR section 173.150(b)(2) and 173.150(C)].

Section XV - Regulatory Information

<table>
<thead>
<tr>
<th>Chemical Inventory Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient</td>
</tr>
<tr>
<td>Acetone</td>
</tr>
<tr>
<td>Ethanol</td>
</tr>
<tr>
<td>Isopropanol</td>
</tr>
<tr>
<td>Methanol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>SARA 302</th>
<th>SARA 313</th>
<th>RCRA</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Ethanol</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Methanol</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Chemical Weapons Convention: No  
TSCA 12(b): No  
CDTA: Yes  
SARA 311/312: Acute: Yes, Chronic: No, Fire: Yes, Pressure: No, Reactivity: No

Section XVI - Other Information

This information is believed to be correct but is not warranted as such, nor does it purport to be all inclusive.

Revision Date: Jan. 15, 2018