



## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION:

<b>PRODUCT CODE</b>	A0280
<b>PRODUCT NAME</b>	FRAISTONE
<b>SUPPLIER</b>	Shanghai M & U International Trade Co., Ltd. Rm 1717, No 598 North NuJiang Road 200333 Shanghai, China +86-21-32515501 32515502 sales@mu-intel.com

**FOR EMERGENCIES CALL CHEMTREC: 800-424-9300 (24-HOURS)**

### 2. HAZARD IDENTIFICATION:

#### Classification of the substance or mixture

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 4), H227

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### GHS Label elements, including precautionary statements

##### Pictogram

None

##### Signal word

Warning

##### Hazard statement(s)

H227 Combustible liquid.

##### Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P403 + P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/ container to an approved waste disposal plant.

#### Hazards not otherwise classified (HNOC) or not covered by GHS

None

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS:

#### Substances

Formula : C<sub>9</sub> H<sub>16</sub> O<sub>4</sub>  
Molecular weight : 188.22 g/mol  
CAS-No. : 6290-17-1  
EC-No. : 228-536-2

#### Hazardous Components

Component	Classification	Concentration
Ethyl 2,4-dimethyl-1,3-dioxolane-2-acetate	Flam. Liq. 4; H227	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 4. FIRST-AID GUIDE:

#### Description of first aid measures

##### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

##### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

##### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

##### In case of eye contact

Flush eyes with water as a precaution.

##### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11

#### Indication of any immediate medical attention and special treatment needed

No data available

### 5. FIRE-FIGHTING GUIDE:

#### Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **Special hazards arising from the substance or mixture**

Carbon oxides

### **Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

### **Further information**

Use water spray to cool unopened containers.

## **6. ACCIDENTAL RELEASE GUIDE:**

### **Personal precautions, protective equipment and emergency procedures**

Avoid breathing vapours, mist or gas. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### **Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

### **Reference to other sections**

For disposal see section 13.

## **7. HANDLING AND STORAGE:**

### **Precautions for safe handling**

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

For precautions see section 2.2.

### **Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### **Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## **8. EXPOSURE AND PERSONAL PROTECTION:**

### **Control parameters**

### **Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

### **Exposure controls**

#### **Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### **Personal protective equipment**

#### **Eye/face protection**

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### **Body Protection**

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### **Control of environmental exposure**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## **9. PHYSICAL AND CHEMICAL PROPERTIES:**

### **Information on basic physical and chemical properties**

<b>Appearance</b>	
<b>Form:</b>	clear, liquid
<b>Colour:</b>	colourless
<b>Odour</b>	No data available
<b>Odour</b>	Threshold No data available
<b>pH</b>	No data available
<b>Melting point/freezing point</b>	No data available
<b>Initial boiling point and boiling range</b>	No data available
<b>Flash point</b>	91 °C (196 °F) - closed cup

<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Upper/lower flammability or explosive limits</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Vapour density</b>	No data available
<b>Relative density</b>	1.042 g/cm <sup>3</sup> at 25 °C (77 °F)
<b>Water solubility</b>	No data available
<b>Partition coefficient: n- octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive properties</b>	No data available
<b>Oxidizing properties</b>	No data available
<b>Other safety information</b>	No data available

## 10. STABILITY AND REACTIVITY:

### **Reactivity**

No data available

### **Chemical stability**

Stable under recommended storage conditions.

### **Possibility of hazardous reactions**

No data available

### **Conditions to avoid**

Heat, flames and sparks.

### **Incompatible materials**

Strong oxidizing agents

### **Hazardous decomposition products**

Other decomposition products - No data available

In the event of fire: see section 5

## 11. TOXICOLOGICAL INFORMATION:

### **Information on toxicological effects**

#### **Acute toxicity**

No data available

Inhalation: No data available

Dermal: No data available

No data available

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity****IARC:**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

No data available

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**12. ECOLOGICAL INFORMATION:**

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects**

No data available

**13. DISPOSAL RECOMMENDATIONS:**

**Waste treatment methods**

**Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORTATION INFORMATION:**

<b>DOT (US)</b>	
<b>NA-Number:</b>	1993
<b>Proper shipping name:</b>	Combustible liquid, n.o.s. (Ethyl 2,4-dimethyl-1,3-dioxolane-2-acetate)
<b>Class:</b>	NONE
<b>Packing group:</b>	III
<b>Reportable Quantity(RQ):</b>	
<b>Poison Inhalation Hazard:</b>	No
<b>IMDG</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods

**15. REGULATORY INFORMATION:**

**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### **SARA 313 Components**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### **SARA 311/312 Hazards**

Fire Hazard

### **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

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

<b>Product</b>	<b>CAS-No.</b>	<b>Revision Date</b>
Ethyl 2,4-dimethyl-1,3-dioxolane-2-acetate	6290-17-1	-

### **New Jersey Right To Know Components**

<b>Product</b>	<b>CAS-No.</b>	<b>Revision Date</b>
Ethyl 2,4-dimethyl-1,3-dioxolane-2-acetate	6290-17-1	-

### **California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## **16. OTHER INFORMATION:**

### **Full text of H-Statements referred to under sections 2 and 3.**

Flam. Liq. Flammable liquids  
H227 Combustible liquid.

### **HMIS Rating**

Health hazard: 0  
Chronic Health Hazard:  
Flammability: 2  
Physical Hazard 0

### **NFPA Rating**

Health hazard: 0  
Fire Hazard: 2  
Reactivity Hazard: 0

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Since the conditions for use, handling, storage and disposal of this product are beyond M&U's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

**Prepared By:** M&U International LLC

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