



## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION:

<b>PRODUCT CODE</b>	A0119
<b>PRODUCT NAME</b>	MUSK KETONE
<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:

#### Emergency Overview

#### OSHA Hazards -

Carcinogen

#### GHS Classification

Carcinogenicity (Category 2)

Acute aquatic toxicity (Category 1)

Chronic aquatic toxicity (Category 1)

#### GHS Label elements, including precautionary statements

Pictogram

Signal word            Warning

#### Hazard statement(s)

H351                    Suspected of causing cancer.

H410                    Very toxic to aquatic life with long lasting effects.

#### Precautionary statement(s)

P273                    Avoid release to the environment.

P281                    Use personal protective equipment as required.

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

#### HMIS Classification

Health hazard        1

Flammability         1

Physical hazards     1

#### NFPA Rating

Health hazard        1

Fire                    1

Reactivity Hazard    0

#### Potential Health Effects

**Inhalation**            May be harmful if inhaled. May cause respiratory tract irritation.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.  
**Eyes** May cause eye irritation.  
**Ingestion** May be harmful if swallowed.

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS:

Formula	C14N2O5	
Molecular Weight	294.30 g/mol	
CAS-No	EC-No	Index-No.
81-14-1	201-328-9	609-069-00-7

### 4. FIRST-AID GUIDE:

#### **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**

Rinse with plenty of water as a precaution.

#### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 5. FIRE-FIGHTING GUIDE:

#### **Conditions of flammability**

Not flammable or combustible.

#### **Suitable extinguishing media**

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

#### **Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for firefighting if necessary.

#### **Hazardous combustion products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO<sub>x</sub>).

### 6. ACCIDENTAL RELEASE GUIDE:

#### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE:**

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

**8. EXPOSURE AND PERSONAL PROTECTION:**

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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).

**Hand 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.

**Eye 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 and 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.

**Hygiene measures**

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

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

**Appearance**

Form

SOLID

Color

PALE YELLOW CRYSTALS

**Safety data**

Melting point (°C) 135

Boiling point (°C)	>200
Flash point (°F)	Closed cup >200
Water solubility	INSOLUBLE
Partition coefficient:	
n-octanol/water log Pow:	4.3
Odor	MUSKY

## 10. STABILITY AND REACTIVITY:

### Chemical stability

Stable under recommended storage conditions.

### Materials to avoid

Strong acids, strong bases.

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. – Carbon Oxides, nitrogen oxides (NO<sub>x</sub>).

## 11. TOXICOLOGICAL INFORMATION:

### Acute toxicity

#### Oral LD50

LD50 Oral - rat - > 10,000 mg/kg

#### Dermal LD50

LD50 Dermal - rabbit - > 10,000 mg/kg

#### Skin corrosion/irritation

Skin - rabbit - No skin irritation - 24 h

#### Serious eye damage/eye irritation

Eyes - guinea pig - No eye irritation - 24 h

### Carcinogenicity

Suspected human carcinogens

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

Reproductive toxicity - rat - Oral

Maternal Effects: Other effects. Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Reproductive toxicity - rat - Oral

Maternal Effects: Other effects. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

**Potential health effects**

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Signs and Symptoms of Exposure**

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

**Additional Information**

RTECS: KM5775841

**12. ECOLOGICAL INFORMATION:**

**Toxicity**

Toxicity to daphnia static test - Daphnia magna (Water flea) - > 0.46 mg/l - 48 h and other aquatic invertebrates. Method: OECD Test Guideline 202

Toxicity to algae Growth inhibition EC50 - Pseudokirchneriella subcapitata (green algae) - 0.24 mg/l - 72 h

Method: OECD Test Guideline 201

NOEC - Pseudokirchneriella subcapitata (green algae) - 0.088 mg/l -72 h

Method: OECD Test Guideline 201

**Persistence and degradability**

Biodegradability aerobic Biochemical oxygen demand

Result: < 80 % - Not readily biodegradable.

Method: OECD Test Guideline 302

**Bioaccumulative potential**

Bioaccumulation Oncorhynchus mykiss (rainbow trout)-21 d

Bioconcentration factor (BCF): 1,380

**Other adverse effects**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

**13. DISPOSAL RECOMMENDATIONS:**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

## 14. TRANSPORTATION INFORMATION:

### DOT (US)

Not dangerous goods

### IMDG

UN number: 3077 Class: 9 Packing group: III EMS-No: F-A, S-F

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (4'-tert-Butyl-2',6'-dimethyl-3',5'-dinitroacetophenone)

Marine pollutant: Marine pollutant

### IATA

UN number: 3077 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (4'-tert-Butyl-2',6'-dimethyl-3',5'-dinitroacetophenone)

### Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packaging containing inner packaging with Dangerous Goods > 5L for liquids or > 5kg for solids.

## 15. REGULATORY INFORMATION:

### OSHA Hazards

Carcinogen

### SARA 302 Components

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

### SARA 313 Components

SARA 313: 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

Chronic Health Hazard

### Massachusetts Right To Know Components

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

### Pennsylvania Right To Know Components

4-tert-Butyl-2,6-dimethyl-3,5-dinitroacetophenone CAS-No. 81-14-1

### New Jersey Right To Know Components

4-tert-Butyl-2,6-dimethyl-3,5-dinitroacetophenone CAS-No. 81-14-1

### 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.

## OTHER INFORMATION:

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. 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 MSDS. 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 MSDS. The user should review these regulations to ensure full compliance.

Prepared by Shanghai M&U International, LLC