

**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:**

**Classification of the substance or mixture**

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

Carcinogenicity (Category 2) H351

Acute aquatic toxicity (Category 1) H400

Chronic aquatic toxicity (Category 1) H410

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

**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)**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P273 Avoid release to the environment.

P281 Use personal protective equipment as required.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P391 Collect spillage.  
 P405 Store locked up.  
 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**

Synonyms Ketone Moschus  
 4-tert-Butyl-2,6-dimethyl-3,5-dinitroacetophenone  
 Formula C<sub>14</sub> H<sub>18</sub> N<sub>2</sub> O<sub>5</sub>  
 Molecular Weight 294.3 g/mol  
 CAS-No. 81-14-1

**Hazardous Components**

Component	Classification	Concentration
<b>4'-tert-Butyl-2',6'-dimethyl-3',5'-dinitroacetophenone</b>		
	Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H351, H410	90 - 100 %
<b>Musk xylene</b> Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)		
	Expl. 1.2; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H202, H351, H410	0.1 - 1 %

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**

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, nitrogen oxides (NO<sub>x</sub>)

**Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Further information**

No data available

**6. ACCIDENTAL RELEASE GUIDE:****Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

**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.

**Reference to other sections**

For disposal see section 13.

**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.  
For precautions see section 2.2.

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

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

**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 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).

**Control of environmental exposure**

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

### Information on basic physical and chemical properties

<b>Appearance</b>	
<b>Form:</b>	crystalline
<b>Colour:</b>	yellow
<b>Odour</b>	no data available
<b>Odour Threshold</b>	no data available
<b>pH</b>	no data available
<b>Melting point/freezing point</b>	Melting point/range: 135 - 139 °C (275 - 282 °F) - lit.
<b>Initial boiling point and boiling range</b>	no data available
<b>Flash point</b>	> 168 °C (> 334 °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>	0.1 hPa (0.1 mmHg) at 80 °C (176 °F)
<b>Vapour density</b>	no data available
<b>Relative density</b>	no data available
<b>Water solubility</b>	0.00046 g/l at 20 °C (68 °F)
<b>Partition coefficient: n- octanol/water</b>	log Pow: 4.3
<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

#### Chemical stability

Stable under recommended storage conditions.

#### Possibility of hazardous reactions

No data available

#### Conditions to avoid

No data available

#### Incompatible materials

Strong acids, Strong bases

#### 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

LD50	Oral	rat	> 10,000 mg/kg
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**Inhalation:** No data available

LD50	Dermal	rabbit	> 10,000 mg/kg
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No data available

#### Skin corrosion/irritation

Skin – rabbit

Result: No skin irritation - 24 h

#### Serious eye damage/eye irritation

Eyes - guinea pig

Result: No eye irritation - 24 h

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

Suspected human carcinogens

#### IARC:

3 - Group 3: Not classifiable as to its carcinogenicity to humans (Musk xylene)

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

Reproductive toxicity - rat - Oral

**Maternal Effects:**

Other effects. Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implantstotal 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).

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: KM5775841

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

**12. ECOLOGICAL INFORMATION:**

**Toxicity**

**Toxicity to daphnia and other aquatic invertebrates**

**Static test**

Daphnia magna (Water flea)	> 0.46 mg/ l	48 h
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(OECD Test Guideline 202)

**Toxicity to algae**

**Growth inhibition EC50**

Pseudokirchneriella subcapitata (green algae)	0.24 mg/l	72 h
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(OECD Test Guideline 201)

**NOEC**

Pseudokirchneriella subcapitata (green algae)	0.088 mg/l	72 h
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(OECD Test Guideline 201)

**Persistence and degradability**

**Biodegradability**

Aerobic Biochemical oxygen demand - Exposure time 28 d



Result: < 80 % - Not readily biodegradable.  
(OECD Test Guideline 302)

**Bioaccumulative potential**

**Bioaccumulation**

Oncorhynchus mykiss (rainbow trout) - 21 d

**Mobility in soil**

No data available

- 47 µg/l

Bioconcentration factor (BCF): 1,380

**Results of PBT and vPvB assessment**

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

**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:**

**Waste treatment methods**

**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:**

<b>DOT (US)</b>	Not dangerous goods
<b>IMDG</b> <b>UN number:</b> <b>Proper shipping name:</b> <b>Packing group:</b> <b>Class:</b> <b>EMS-No:</b> <b>Marine pollutant:</b>	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (4'-tert-Butyl-2',6'-dimethyl3',5'- dinitroacetophenone) III 9 F-A, S-F Marine pollutant
<b>IATA</b> <b>UN number:</b> <b>Proper shipping name:</b>	3077



<b>Packing group:</b> <b>Class:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (4'-tert-Butyl-2',6'-dimethyl3',5'- dinitroacetophenone) III 9
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**Further information**

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

**15. REGULATORY INFORMATION:**

**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**

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

**New Jersey Right To Know Components**

Product	CAS-No.	Revision Date
4'-tert-Butyl-2',6'-dimethyl-3',5'- dinitroacetophenone	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.

**16. OTHER INFORMATION:**

The information in this SDS 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 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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