

Revised Date: March 6, 2017

## 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Product name: Coumarin 478  
Product Number: 04780  
Product use: For laboratory research purposes  
Restrictions on use: Not for drug or household use  
Safety Sheet Supplier: Oakley, Inc.  
4000 Luxottica Place  
Mason, OH 45040  
USA  
Telephone: (614) 492-5610  
Emergency Phone: (614) 674-4846  
E-mail address: info.exciton@luxotticaretail.com

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
Not a hazardous substance or mixture.

### Hazards not otherwise classified or not covered by GHS

None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: 2,3,6,7,10,11-hexahydro-1H,5H-cyclopenta[3,4][1]benzopyrano [6,7,8-ij]quinolizin-12(9H)-one  
Formula: C18 H19 NO2  
Molecular Weight: 281.36 gm/mol  
CAS-No.: 41175-45-5  
EC-No.: Not available

### Hazardous components

No ingredients are hazardous according to OSHA criteria.  
No components need to be disclosed according to the applicable regulations.

## 4. FIRST AID MEASURES

### If inhaled

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

### In case of skin contact

Wash off with soap and plenty of water.

### In case of eye contact

Flush eyes with water for 15 minutes as a precaution.

### If swallowed

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

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

No further relevant information available

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

No further relevant information available

**5. FIRE-FIGHTING MEASURES****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 (NOx)

**Special protective equipment for fire-fighters**

Wear self-contained breathing apparatus for fire-fighting if necessary.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Wear personal protective equipment. Avoid dust formation. Ensure adequate ventilation. Avoid breathing dust.

**Environmental precautions**

Prevent further leakage of 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**

Sweep up and shovel. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE****Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Conditions for safe storage**

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

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Hygiene measures and engineering controls**

Adequate ventilation and/or containment in accordance with good laboratory practices.

**Personal protective equipment****Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with impermeable 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 / face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Body protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

a) Appearance	Form: crystals
b) Odor	Color: pale yellow
c) Odor Threshold	No data available
d) pH	No data available
e) Melting point	147-149 °C
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	No data available
l) Vapor density	No data available
m) Relative density	No data available
n) Solubility	Insoluble in water
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available

**10. STABILITY AND REACTIVITY**

a) Reactivity	No data available
b) Chemical stability	Stable under recommended storage conditions
c) Possibility of hazardous reactions	No data available
d) Conditions to avoid (e.g. static discharge)	No data available
e) Incompatible materials	Strong oxidizing agents
f) Hazardous decomposition products	See Section 5.

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

No data available

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitization**

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

**Routes of Exposure:** Inhalation, Eye contact, Ingestion, Skin contact.

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**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: Not available

**12. ECOLOGICAL INFORMATION**

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**PBT and vPvB assessment**

No data available

**Other adverse effects**

No data available.

**13. DISPOSAL CONSIDERATIONS**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORT INFORMATION****DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**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**

No Health Hazard

**Massachusetts Right To Know Components**

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

**Pennsylvania Right To Know Components**

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

**New Jersey Right To Know Components**

No components are subject to the New Jersey Right to Know Act.

**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****HMIS Rating**

Health hazard: 0

Chronic Health Hazard:

Flammability: 0

Physical Hazard: 0

**NFPA Rating**

Health hazard: 0

Fire Hazard: 0

Reactivity Hazard: 0

**Further information**

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