



## Material Safety Data Sheet

OSHA / ANSI Z400.1-2004 Compliant

MSDS date: 13-Jun-2006

**NFPA Rating:** Health: 2 Flammability: 1 Instability: 0  
**HMIS Rating:** Health: 2\* Flammability: 1 Physical Hazard: 0 Personal Protection: X

\* Indicates possible chronic health effects

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Darocur 1173

**Product Number:** 1218789

**Intended Use:** Photoinitiator

**Manufacturer/Supplier:** Ciba Specialty Chemicals Corporation  
540 White Plains Road  
Tarrytown, NY 10591  
8:30am - 5pm Phone Number: 1-914-785-2000  
MSDS Request Line (voicemail): 1-800-431-2360  
Customer Service/Product Information 1-800-474-4731

**Emergency 24-Hour Health/Environmental Phone: 1-800-873-1138**

### 2. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**Signal Word:** CAUTION!  
**Physical Form:** Liquid  
**Color:** Yellow  
**Odor:** Slight  
**Health:** This product may be harmful, if swallowed. Prolonged exposure to high concentrations may produce liver toxicity. .  
**Physical Hazards:** None Expected .  
**Environmental:** This product is toxic to aquatic organisms. Releases to the environment are to be avoided.

**OSHA Hazardous Substance:** This material is classified as hazardous under OSHA regulations.

**Primary Route(s) of Entry:** Ingestion, Skin, Inhalation, Eyes.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### HAZARDOUS COMPONENTS

Components	CAS Number	Weight %
2-Hydroxy-2-methyl-1-phenyl-1-propanone	7473-98-5	95 - 100

### 4. FIRST AID MEASURES

<b>Eyes:</b>	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>Skin:</b>	Wash off immediately with soap and plenty of water. Get medical attention if irritation occurs.
<b>Inhalation:</b>	Remove to fresh air, if not breathing give artificial respiration. If breathing is difficult, give oxygen and get immediate medical attention.
<b>Ingestion:</b>	Do not induce vomiting. If vomiting occurs naturally, have casualty lean forward to reduce the risk of aspiration. Seek medical attention immediately.
<b>Notes to physician:</b>	Pre-existing allergies or eczema.

### 5. FIRE FIGHTING MEASURES

<b>Fire Fighting Measures:</b>	Standard procedure for chemical fires.
<b>Suitable Extinguishing Media:</b>	Carbon dioxide, dry chemical, foam or water mist.
<b>Fire Fighting Equipment:</b>	Wear self-contained breathing apparatus and protective suit.
<b>Hazardous Combustion Products:</b>	Burning may produce toxic combustion products.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Cleanup Instructions:</b>	Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Wear suitable protective equipment. Should not be released into the environment.
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### 7. HANDLING AND STORAGE

<b>Handling:</b>	As with all industrial chemicals, use good industrial practices when handling. Avoid eye, skin, and clothing contact. Do not inhale. Do not taste or swallow. Use only with adequate ventilation.
<b>Storage:</b>	Keep containers tightly closed in a cool, well-ventilated place.
<b>Explosion Hazards:</b>	No physical hazards determined at this time.  Handle this liquid with care and follow standard industrial practices.

#### For Industrial Use Only

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines:

There are no OSHA or ACGIH exposure guidelines available for component(s) in this product.

Components	OSHA PEL	OSHA STEL	ACGIH TWA	ACGIH STEL	Ciba/ Manufacturer IEL:
2-Hydroxy-2-methyl-1-phenyl-1-propanone 7473-98-5					1 mg/m <sup>3</sup>

### Personal Protective Equipment

<b>Eye/Face Protection:</b>	Wear side-shield safety glasses.
<b>Skin Protection:</b>	Wear chemical resistant gloves and protective clothing.
<b>Respiratory Protection:</b>	Use NIOSH approved respirator as needed to mitigate exposure.
<b>Engineering Controls:</b>	Local exhaust/ventilation recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical Form:</b>	Liquid
<b>Color:</b>	Yellow
<b>Odor:</b>	Slight.
<b>Boiling Point:</b>	80 - 81°C (176 - 178°F) 0.10 mm Hg
<b>Freezing/Melting Point:</b>	4°C (39°F)
<b>Solubility in water:</b>	~ 1 %
<b>Vapor Density:</b>	Not applicable
<b>Vapor Pressure:</b>	1 x 10 <sup>(-2)</sup> mmHg @ 20°C (68°F)
<b>Density:</b>	Not determined
<b>Specific Gravity:</b>	Not applicable
<b>Viscosity:</b>	20 - 25 cSt @ 20 C (68 F)
<b>pH:</b>	Not determined
<b>Percent Volatile:</b>	< 0.5 %
<b>VOC:</b>	< 0.5 %
<b>Partition Coefficient (Octanol/Water):</b>	log Pow = 1.66
<b>Decomposition Temperature:</b>	> 250°C (482°F)
<b>Flammability Limits in Air:</b>	
<b>Flash point:</b>	> 100°C (212°F)
<b>Test Method (for Flash Point):</b>	Closed cup

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable.
<b>Conditions to Avoid:</b>	None known
<b>Incompatibility:</b>	Strong oxidizing agents, strong acids, strong bases.

<b>Hazardous Decomposition Products:</b>	No decomposition expected under normal storage conditions.
<b>Possibility of Hazardous Reactions:</b>	None expected.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute Oral Toxicity:</b>	LD50: 1694 mg/kg (Rats)
<b>Acute Dermal Toxicity:</b>	LD50 6930 mg/kg (Rats)
<b>Acute Inhalation Toxicity:</b>	Not determined.
<b>Eye Irritation:</b>	(Rabbits) Not an irritant.
<b>Skin Irritation:</b>	(Rabbits) Not an irritant.
<b>Skin Sensitization:</b>	(Guinea pig) Maximization test: Not a sensitizer.
<b>Carcinogenicity (IARC; NTP; OSHA; ACGIH):</b>	None of the components in this product at concentrations greater than 0.1% are listed by IARC; NTP, OSHA or ACGIH as a carcinogen.
<b>Mutagenicity:</b>	Ames/E. Coli test: Non-mutagenic
<b>Reproductive Toxicity:</b>	Not determined
<b>Teratogenicity:</b>	Not determined.
<b>Neurotoxicity:</b>	Not determined
<b>Subacute Toxicity:</b>	Not determined
<b>Subchronic Toxicity:</b>	The test substance was administered by oral gavage to rats at dosages of 0, 30, 100, 300 and 1,000 mg/kg/day for 28 days. The target organ was the liver with findings of increased weight at the two highest doses. Histopathologic examination showed cell enlargement and proliferation only at the highest dose. Hematology and clinical chemistry measurements were not conducted. The NOEL appears to be 100 mg/kg/day.
<b>Chronic toxicity:</b>	Not determined
<b>Absorption / Distribution / Excretion / Metabolism:</b>	Not determined
<b>Additional Information:</b>	Not determined

## 12. ECOLOGICAL INFORMATION

<b>Toxicity to Fish:</b>	LC50 160 ppm 96 hour (Golden orfe)
<b>Toxicity to Invertebrates:</b>	Not determined

<b>Toxicity to Algae:</b>	0.64 ppm EC50 72 hour (Green algae)
<b>Toxicity to Sewage Bacteria:</b>	Inhibitory concentration on respiration of aerobic waste water bacteria: IC50: 3 ppm
<b>Activated Sludge Respiration Inhibition Test:</b>	Not determined
<b>Biochemical Oxygen Demand (BOD):</b>	Not determined
<b>Chemical Oxygen Demand (COD):</b>	Not determined
<b>Total Oxygen Demand (TOD):</b>	Not determined
<b>Biodegradability:</b>	Biodegradability in modified Sturm test: Biodegradable, but not readily, with 59% in 28 days.
<b>Bioaccumulation:</b>	Not determined
<b>Additional Environmental Data:</b>	Not determined

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal:** Dispose in accordance with local, state, provincial and federal regulations.

### 14. TRANSPORT INFORMATION

**U.S. Department of Transportation (DOT):**

Not regulated for this mode of transport.

**International Maritime Dangerous Goods (IMDG):**

Not regulated for this mode of transport.

**International Air Transportation Authority (IATA):**

Not regulated for this mode of transport.

### 15. REGULATORY INFORMATION

#### **Federal Regulations**

**OSHA Hazardous Substance:** This material is classified as hazardous under OSHA regulations

**Clean Air Act - Hazardous Air Pollutants (HAP):** This product does not contain any Hazardous Air Pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

**Clean Air Act - Volatile Organic Compounds (VOC):** This product does not contain any SOCM Intermediate or Final Volatile Organic Compounds (VOC), as defined by the U.S. Clean Air Act Section 111 (40 CFR 60.489).

**Clean Air Act - Ozone Depleting Substances (ODS):** This product neither contains, nor was manufactured with, a Class I or Class II ozone depleting substance (ODS), as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A+B).

**Clean Water Act - Priority Pollutants (PP):** This product does not contain any priority pollutants listed under the U.S. Clean Water Act Section 307 (2)(1) Priority Pollutant List (40 CFR 401.15).

**Resource Conservation and Recovery Act (RCRA):** Not a hazardous waste under RCRA (40 CFR 261.21).

**SARA Section 302 Extremely Hazardous Substances (EHS):** This product does not contain any components regulated under Section 302 (40 CFR 355) as Extremely Hazardous Substances.

**SARA Section 304 CERCLA Hazardous Substances:** This product does not contain any components regulated under Section 304 (40 CFR 302) as hazardous chemicals for emergency release notification ("CERCLA" List).

**SARA Section 311/312 Hazard Communication Standard (HCS):** This product is regulated under Section 311/312 HCS (40 CFR 370). Its hazard(s): Chronic (delayed) health hazard.

**SARA Section 313 Toxic Chemical List (TCL):** This product does not contain any component(s) listed on the Section 313 Toxic Chemical List.

**TSCA Section 8(b) Inventory Status:** All component(s) comprising this product are either exempt or listed on the TSCA inventory.

**TSCA Section 5(e) Consent Orders:** This product is not subject to a Section 5(e) Consent Order.

**TSCA Significant New Use Rule (SNUR):** This product is not subject to a Significant New Use Rule (SNUR).

**TSCA Section 5(f):** This product is not subject to a Section 5(f)/6(a) rule.

**TSCA Section 12(b) Export Notification:** This product does not contain any component(s) that are subject to a Section 12(b) Export Notification

### **State Regulations**

**California Proposition 65:** This product does not contain any components currently on the California list of Known Carcinogens and Reproductive Toxins.

**Pennsylvania Right-To-Know:** This product does not contain any components that are subject to the Pennsylvania Right-To-Know disclosure requirement.

### **International Regulations**

**Chemical Weapons Convention (CWC):** This product does not contain any component(s) listed under the Chemical Weapons Convention Schedule of Chemicals.

**Domestic Substance List (DSL) Status:** All components either exempt or listed on the DSL.

## 16. OTHER INFORMATION

**Disclaimer:** The information contained herein is based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to such data or information. The user is responsible for determining whether the product is suitable for its intended conditions of use.