



SAFETY DATA SHEET

According to GHS Globally Harmonised System

BDK

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product name: 2,2-Dimethoxy-1,2-diphenyl-ethanone
CAS number: 24650-42-8
EINECS number: 246-386-6
Product code: VL-1060
Synonyms: DMPA
Use/description of product: Photo initiator for UV-cure.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Contains: 2,2-Dimethoxy-1,2-diphenyl-ethanone 99.5+%

3. HAZARDS IDENTIFICATION

Hazard Symbols: N

Risk Phrases: R50/53

Other hazards: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. In case of irritation of respiratory system or mucous membranes, seek medical attention. In case of indisposition, seek medical attention. In case of prolonged exposure, seek medical attention.

Skin contact: Wash off with soap and plenty of water. Do not use organic solvents.

Eye contact: Rinse immediately with plenty of water for at least 15 minutes. In case of eye irritation, seek medical attention.

Ingestion: Immediately give plenty (> 500 ml) of water (if possible charcoal slurry). In case of spontaneous vomiting be sure that vomitus can freely drain due to danger of suffocation. Give water repeatedly. Artificial induction of vomiting should be restricted to first aid staff. Give nothing by mouth in cases of unconsciousness or convulsion. Seek medical advice.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Water spray, Carbon dioxide (CO₂), Foam, Dry powder.

Extinguishing media which must not be used for safety reasons: High volume water jet.

Exposure hazards: Contaminated water from fire hoses or sprinklers, etc., must be prevented from draining into watercourses, sewers, or the ground water. Sufficient measures must be taken to retain water used for extinguishing. Contaminated water and soil must



be disposed of in conformity with local regulations.

Special protective equipment for firefighters: Wear full protective clothing. Wear self-contained breathing apparatus.

Hazardous decomposition products: Oxides of carbon, Toxic gases/vapours.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Do not breathe vapours/dust. Remove all sources of ignition. Avoid contact with skin, eyes and clothing.

Environmental precautions: Do not flush into surface water, sanitary sewer or ground water system.

Methods for cleaning up: Use mechanical handling equipment. Collect the spilled product into suitable containers, which must be tightly sealed and properly labelled. Avoid dust formation.

7. HANDLING AND STORAGE

Handling requirements: Dangerous for the environment. Handle and open container with care. Avoid dust formation and ignition sources. Ensure good local exhaust ventilation. Do not eat, drink or smoke at the workplace.

Storage conditions: Keep away from food and drink. Store in the original container securely closed. Danger! Explosion risk. Risk of explosion if an air-dust mixture forms. Avoid creating dusty conditions. Empty only into earthed containers. If container is larger than 2000 liter in volume, or when flammable solvents are present inert container or use a system otherwise designed to prevent or contain an explosion -- seek expert advice.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s): CIEL-TWA Ciba internal exposure limit (8 hour time weighted average)
10 mg/m³
Exposure limit for inhalable dust.

Technical measures/Precautions: Exposure limit(s) should be monitored using suitable analytical equipments.

Respiratory protection: Effective dust mask.

Hand protection: Protective gloves.

Eye protection: Suitable goggles or face protection.

Skin and body protection: Working clothes , Closed footwear.

9. PHYSICAL AND CHEMICAL PROPERTIES

State: crystal

Color: White

Odour: typical

Melting Range: 64-67°C

Density 20 °C: 1.21 g/cm³

Flash point: > 190 °C DIN 51584

Ignition Temperature: 380 °C BAM



Water solubility 20 °C: < 0.01 %

Vapour pressure 20 °C: 1.1E-3 Pa

Partition coefficient; Log Pow 20 - 3.42

25°C :

pH-value: not tested.

Explosive properties: not tested.

10. STABILITY AND REACTIVITY

Decomposition temperature: > 300 °C

Conditions to avoid: Static discharges.

Materials to avoid: Strong acids, strong bases and strong oxidising agents.

Haz. decomp. products: Oxides of carbon, Toxic gases/vapours.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity: Rat
LD50 > 2000 mg/kg

**Acute dermal
irritation/corrosion:** Rabbit
not irritant.

Acute eye irritation/corrosion: Rabbit
not irritant.

Acute skin sensitization: Guinea pig
not sensitizing.

12. ECOLOGICAL INFORMATION

Acute toxicity to fish: Zebra fish (Brachydanio rerio) 96 h
LC50 6 mg/l

Acute toxicity to daphnia: Daphnia magna 24 h
EC50 26 mg/l

Acute toxicity to bacteria: Sewage sludge 3 h
IC50 > 100 mg/l

Acute toxicity to algae: Scenedesmus sp. 72 h
EC50 0.17 mg/l

Biodegradability: Not biodegradable.

Ecotoxic effects: Do not discharge product uncontrolled into the environment.

13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused
products:** Residual chemical should be disposed by incineration or by other modes of disposal in compliance with local legislation.

Contaminated packaging: Contaminated packaging material should be treated equivalent to residual chemical. Clean packaging material should be subjected to waste management schemes (recovery recycling, reuse) according to local legislation.

14. TRANSPORT INFORMATION

Flash point: > 190 °C



ADR/RID: Class: 9
Cipher: 12C
UN No.: 3077
Proper shipping name: ENVIRONMENTALLY HAZARDOUS
SUBSTANCE,SOLID, N.O.S.
Additional Information: (2,2-Dimethoxy-1,2-diphenyl-ethanone)

IMO: Class: Free

ICAO: Class: 9
UN No.: 3077
Packaging group: III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S.
Additional Information:(2,2-Dimethoxy-1,2-diphenyl-ethanone)

15. REGULATORY INFORMATION

Classification: Self-classification.

Hazard symbols: N Dangerous for the environment.

R-Phrase(s): R50/53 Very toxic to aquatic organisms, may cause long-term
adverse effects in the aquatic environment.

S-Phrase(s): S61 Avoid release to the environment. Refer to special instructions/Safety dat
a sheets.

16. OTHER INFORMATION

Other information: Employers should use this information only as a supplement to
other information gathered by them, and should make independent
judgement of suitability of this information to ensure proper use
and protect the health and safety of employees. This information
is furnished without warranty, and any use of the product not in
conformance with this Material Safety Data Sheet, or in
combination with any other product or process, is the responsibility of the user.

Legal disclaimer: The above information is believed to be correct but does not
purport to be all inclusive and shall be used only as a guide.
This company shall not be held liable for any damage resulting
from handling or from contact with the above product.