

**SAFETY DATA SHEET**

according to Regulation (EC) No.1907/2006

Version 4.0 Revision Date 03.03.2016

**Material Safety Data Sheet  
Dihydroxyacetone msds****Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product identifiers**

**Product name** : 1,3-Dihydroxyacetone  
**INCI Name** : Dihydroxyacetone  
**Product Number** : C01002B  
**Brand** : MCBiotec  
**CAS-No.** : 96-26-4  
**EINECS** : 202-494-5

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses** : The ingredients for self tanning

**1.3 Details of the supplier of the safety data sheet**

**Company** : M.C.Biotec Inc.  
47-505, Demin Huayuan  
Nantong, China  
**Tel** : +86-139-13923033  
**Fax** : +86-10-80115555 ext 441505  
**E-mail address** : [mc@mcbiotec.com](mailto:mc@mcbiotec.com)  
**Website** : [www.mcbiotec.com](http://www.mcbiotec.com)

**1.4 Emergency telephone number**

**Emergency Phone #** : +86-139-13923033

**Section 2: Hazards Identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**

Skin irritation (Category 2)

Eye irritation (Category 2)

Specific target organ toxicity - single exposure (Category 3)

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

Irritating to eyes, respiratory system and skin.

**2.2 Label elements**

**Labelling according Regulation (EC) No 1272/2008 [CLP]**

Pictogram



Signal word

Warning

Hazard statement(s)

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

Precautionary statement(s)

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard

none

Statements

**According to European Directive 67/548/EEC as amended.**

Hazard symbol(s)



R-phrase(s)

R36/37/38

Irritating to eyes, respiratory system and skin.

S-phrase(s)

S26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**2.3 Other hazards - none**

**Section 3: Composition and Information on Ingredients**

**3.1 Substances**

Synonyms : 1,3-Dihydroxy-2-propanone;DHA

Formula : C3H6O3

Molecular Weight : 90.08 g/mol

Component		Concentration
<b>1,3-Dihydroxyacetone</b>		
CAS-No.	96-26-4	-

**Section 4: First Aid Measures****4.1 Description of first aid measures****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**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 thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

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

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

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

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

no data available

**Section 5: Fire Fighting Measures****5.1 Extinguishing media****Suitable extinguishing media**

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

**5.2 Special hazards arising from the substance or mixture**

Carbon oxides

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information**

no data available

**Section 6: Accidental Release Measures****6.1 Personal precautions, protective equipment and emergency procedures**

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

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 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.

**6.4 Reference to other sections**

For disposal see section 13.

**Section 7: Handling and Storage****7.1 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.

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

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

Keep in a dry place.

**7.3 Specific end uses**

no data available

**Section 8: Exposure Controls/Personal Protection****8.1 Control parameters**

Components with workplace control parameters

**8.2 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**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**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### **Section 9: Physical and Chemical Properties**

#### **9.1 Information on basic physical and chemical properties**

a) Appearance	Form: powder Colour: white
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	3.0-6.0 (50g/l, H <sub>2</sub> O, 20 °C)
e) Melting point/freezing point	83 °C (Monomer); 96.5 °C (Dimer)
f) Initial boiling point and boiling range	188 °C (decomposition)
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	Not a highly flammable solid
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	< - 0.01 Pa (20 °C)
l) Vapour density	no data available
m) Relative density	1.52 g/cm <sup>3</sup> (20 °C)
n) Water solubility	> 930 g/l (at 20 °C) according to EC A.6.
o) Partition coefficient: noctanol/water	Log Pow = -1.822
p) Autoignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	no data available

#### **9.2 Other safety information**

no data available

**Section 10: Stability and Reactivity****10.1 Reactivity**

no data available

**10.2 Chemical stability**

no data available

**10.3 Possibility of hazardous reactions**

no data available

**10.4 Conditions to avoid**

Exposure to moisture.

**10.5 Incompatible materials**

Strong oxidizing agents

**10.6 Hazardous decomposition products**

Other decomposition products - no data available

**Section 11: Toxicological Information****11.1 Information on toxicological effects****Acute oral toxicity**

LD50 rat

Dose: &gt;16.000mg/kg

**Acute inhalation toxicity**

LC50 rat

Dose: &gt;5,1mg/l, 4h

Method: OECD Test Guideline 403

Aerosol

**Sensitisation**

In animal experiments:

Results: Negative

Method: OECD Test Guideline 429

**Genotoxicity in vitro**

Mutagenicity (mammal cell test):

Result: negative

Method: OECD Test Guideline 476

**Ames test**

Salmonella typhimurium

Result: positive

Method: OECD Test Guideline 471

**Carcinogenicity**

Did not show carcinogenic effects in animal experiments (Lit.)

**Specific target organ toxicity – single exposure**

The substances or mixture is not classified as specific target organ toxicant, single exposure.

**Specific target organ toxicity – repeated exposure**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

**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.

**Potential health effects**

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

**Ingestion** May be harmful if swallowed.

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

**Eyes** Causes serious 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: Not available

**Section 12: Ecological Information****12.1 Toxicity*****Toxicity to daphnia and other aquatic invertebrates.***

EC50

Species: *Daphnia magna* (Water flea)

Dose: >100mg/l

Exposure time: 48h

Method: OECD Test Guideline 202

***Toxicity to algae***

IC50

Species: *Desmodesmus subspicatus* (green algae)

Dose: >100mg/l

Exposure time: 72h

Method: OECD Test Guideline 201

***Toxicity to bacteria***

EC50

Species: activated sludge

Dose: >1.000mg/l

Exposure time: 3h

Method: OECD Test Guideline 209

**12.2 Persistence and degradability**

***Biodegradability***

Result: Readily biodegradable.

77%

Exposure time: 28d

Method: OECD Test Guideline 301D

**12.3 Bioaccumulative potential**

Partition coefficient: n-octanol/water

log Pow: -1.95

Method: OECD Test Guideline 107

Bioaccumulation is not expected (log Pow <1)

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

Substance does not meet the criteria for PBT or VPvB according to Regulation (EC) No 1907/2006, Annex, XIII.

**12.6 Other adverse effects**

Additional ecological information





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