

## Dihydroxyacetone

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 /  
March 26, 2012 / Rules and Regulation

Revision Date: 13-Aug-2021  
Supersedes: 23-Aug-2018

### 1 PRODUCT & COMPANY IDENTIFICATION

**Product Name:** Dihydroxyacetone  
**Synonyms:** No data available  
**INCI Name:** 1,3-dihydroxy-2-propanone  
**CAS Number:** 96-26-4  
**Formula:** HOCH<sub>2</sub>COCH<sub>2</sub>OH  
 C<sub>3</sub>H<sub>6</sub>O<sub>3</sub> (Hill)  
**Product Form:** Solid (powder)  
**Product Use:** Cosmetic use

**Distributor:** MakingCosmetics Inc.  
**Address:** 10800 231<sup>st</sup> Way NE  
 Redmond, WA 98053 (USA)  
**Phone / Fax:** 425-292-9502 / 425-292-9601  
**Web:** [www.makingcosmetics.com](http://www.makingcosmetics.com)

**Emergency Telephone Number:** 1-800-424-9300 (Chemtrec)

### 2 HAZARDS IDENTIFICATION

**GHS Classification:** Not classified  
**GHS Labeling:** Not a dangerous substance according to GHS  
**GHS Hazard Pictograms:** None  
**GHS Hazard Statements:** None  
**GHS Precautionary Statements:** None  
**Potential Health Hazards:** Eyes: Not expected to be irritant.  
 Inhalation: Not expected to be irritant.  
 Skin: Not expected to be irritant.  
 Ingestion: Not expected to be irritant.

**NFPA Ratings (704):**

Health	N/A	N/A
Flammability	N/A	N/A
Reactivity	N/A	N/A
Specific Hazard	N/A	

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Weight %	Molecular Weight
Dihydroxyacetone	96-26-4	100%	90.07 g/mol

### 4 FIRST AID MEASURES

**Eyes:** Rinse out with plenty of water. Remove contact lenses, if present and easy to do. Seek medical attention if necessary.

**Inhalation:** Move victim to fresh air. Seek medical attention if necessary.

**Skin:** Take off immediately all contaminated clothing. Rinse skin with water/shower. Seek medical attention if necessary.

**Ingestion:** Make victim drink water (two glasses at most). Consult doctor if feeling unwell. Do Not Induce Vomiting! Never give anything by mouth to an unconscious person.

### 5 FIRE-FIGHTING MEASURES

**Suitable (and unsuitable) extinguishing media:** Combustible at high temperature. Use appropriate media (water, foam, CO<sub>2</sub>, dry powder) for adjacent fire. Do not use direct water jet.

**Special protective equipment & precautions for firefighters:** Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Prevent fire extinguishing water from contaminating surface water or the ground water system.

**Flash Points:** No data available

**Specific hazards arising from the fire:** May emit toxic fumes under fire conditions. See also Stability and Reactivity section.

chemical:

## 6 ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment &amp; emergency procedures:</b>	Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Do not try to clean up the leak without proper protective equipment. See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions:</b>	Do not flush into surface water or sanitary sewer system. Notify environmental authorities in case of large leaks.
<b>Methods and material for containment and cleaning up:</b>	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 & 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts. Dispose of all waste and cleanup materials in accordance with regulations.

## 7 HANDLING & STORAGE

<b>Precautions for safe handling:</b>	Observe label precautions. See section 8 for recommendations on the use of personal protective equipment. Keep container closed when not in use.
<b>Conditions for safe storage, incl. any incompatibilities:</b>	Store tightly closed. Store in cool, dry well-ventilated area. Keep away from heat and incompatible materials (see section 10 for incompatibilities). Store at +2 to +8 °C (+36 to +46 °F)

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Component</u>	<u>Exposure Limits</u>	<u>Basis</u>	<u>Entity</u>
Ceteareth-12	Not available		

TWA: Time Weighted Average over 8 hours of work.  
 TLV: Threshold Limit Value over 8 hours of work.  
 REL: Recommended Exposure Limit  
 PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.  
 IDLH: Immediately Dangerous to Life or Health  
 WEEL: Workplace Environmental Exposure Levels  
 CEIL: Ceiling

### Personal Protection:

<b>Eyes:</b>	Safety glasses should be worn.
<b>Inhalation:</b>	Respiratory protection required when dusts are generated.
<b>Body:</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
<b>Other:</b>	Change contaminated clothing. Wash hands after working with substance. Use good personal hygiene practices. Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Solid (Powder)	<b>Vapor Pressure:</b>	<0.01 Pa at 68 °F (20 °C) (OECD Test Guideline 104)
<b>Odor:</b>	Characteristic	<b>Vapor Density:</b>	No data available
<b>Odor Threshold:</b>	No data available	<b>Evaporation Rate:</b>	No data available
<b>Color:</b>	White	<b>Flammability:</b>	Product is not flammable
<b>Molecular Weight:</b>	No data available	<b>Upper/lower Explosive Limit:</b>	No data available
<b>pH @ 68 °F/20 °C:</b>	4-6 at 50g/L	<b>Flash Point:</b>	No data available
<b>Boiling Point:</b>	370 °F (188 °C) at 1013 hPa (OECD Test Guideline 103 Decomposition)	<b>Specific Gravity:</b>	No data available
<b>Melting Point:</b>	95.6 °C (OECD Test Guideline 103)	<b>Solubility in Water:</b>	930 g/L at 68 °F (20 °C) (OECD Test Guideline 105)
<b>Relative Density:</b>	No data available	<b>Auto-Ignition Temperature:</b>	No data available
<b>Partition Coefficient: n-octanol/water:</b>	Pow: 0.01129 Log Pow: -1.95 (20 °C) (OECD Test Guideline 107) Bioaccumulation not expected	<b>Decomposition Temperature:</b>	No data available

<b>Viscosity:</b>	No data available	<b>Explosive Properties:</b>	Not classified as explosive
<b>Oxidizing Properties:</b>	None	<b>Freezing Point:</b>	No data available
<b>Density:</b>	1.52 g/cm <sup>3</sup> at 75.6 °F (24.2 °C) (OECD Test Guideline 109)		

## 10 STABILITY AND REACTIVITY

<b>Reactivity:</b>	The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
<b>Chemical Stability:</b>	The product is chemically stable under standard ambient conditions (room temperature).
<b>Hazardous Polymerization:</b>	Violent reactions possible with: strong oxidizing agents.
<b>Conditions to Avoid:</b>	No data available
<b>Incompatible Materials:</b>	No data available
<b>Hazardous Decomposition Products:</b>	No data available

## 11 TOXICOLOGICAL INFORMATION

<b>Acute Toxicity:</b>	No data available
<b>Skin:</b>	No skin irritation (OECD Test Guideline 404)
<b>Eyes:</b>	No eye irritation (OECD Test Guideline 405)
<b>Respiratory:</b>	LC50: >5.1 mg/L (4h; aerosol) (OECD Test Guideline 403)
<b>Ingestion:</b>	LD50: >16,000 mg/kg (OECD Test Guideline 401)
<b>Carcinogenicity:</b>	Not identified as a carcinogen by IARC, OSHA, or NTP.
<b>Teratogenicity:</b>	No data available
<b>Germ Cell Mutagenicity:</b>	Mammal Cell test: Chromosome aberration. Result: negative (OECD Test Guideline 473) With and without metabolic activation.
<b>Embryotoxicity:</b>	Genotoxicity in vivo (Chromosome aberration test): Negative (OECD Test Guideline 474) Genotoxicity in vitro (In vitro mammalian gene cell mutation test): Negative (OECD Test Guideline 476) With and without metabolic activation.
<b>Specific Target Organ Toxicity:</b>	No data available
<b>Reproductive Toxicity:</b>	No data available
<b>Respiratory/Skin Sensitization:</b>	No data available
<b>Corrosivity:</b>	No data available
<b>Sensitization:</b>	Does not cause skin sensitization (OECD Test Guideline 429)
<b>Irritation:</b>	No data available
<b>Repeated Dose Toxicity:</b>	Subchronic toxicity.
<b>Ames Test:</b>	Salmonella typhimurium Result: positive (OECD Test Guideline 471) With and without metabolic activation.

## 12 ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	
<b>Aquatic Vertebrate:</b>	LC50: >100 mg/L (96h) ( <i>Danio rerio</i> ) (OECD Test Guideline 203) Analytical monitoring: yes
<b>Aquatic Invertebrate:</b>	EC50: >100 mg/L (48h) ( <i>Daphnia magna</i> ) (OECD Test Guideline 202) Growth inhibition NOEC: ≥100 mg/L (72h) ( <i>Desmodesmus subspicatus</i> ) (OECD Test Guideline 201 Limit Test) Analytical monitoring: yes
<b>Terrestrial:</b>	Growth inhibition EC50: ≥100 mg/L (72h) ( <i>Desmodesmus subspicatus</i> ) (OECD Test Guideline 201 Limit Test) Analytical monitoring: yes Respiratory inhibition EC50: >1000 mg/L 3h) (activated sludge) (OECD Test Guideline 209)
<b>Persistence and Degradability:</b>	77%, 28d, aerobic Biochemical oxygen demand. (OECD Test Guideline 301D) Readily biodegradable.
<b>Bioaccumulative Potential:</b>	Partition coefficient: n-octanol/water: (OECD Test Guideline 107) Pow: 0.01129 Log Pow: -1.95 (20 °C)

<b>Mobility in Soil:</b>	Bioaccumulation is not expected.
<b>PBT and vPvB Assessment:</b>	No data available
<b>Other Adverse Effects:</b>	No data available
<b>Additional Ecological Information:</b>	Surface tension: 68.85 mN/m at 68°F (20°C) (OECD Test Guideline 115) Discharge into the environment must be avoided.

## 13 DISPOSAL CONSIDERATIONS

<b>Waste Residues:</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies, if necessary, before disposing of waste product container.
<b>Product Containers:</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies, if necessary, before disposing of waste product container.

The information in section 13 is for the product as shipped. Use and/or alterations to the product may change the characteristics of the material and alter the waste classification and proper disposal methods

## 14 TRANSPORT INFORMATION

<b>DOT (Dept. of Transportation, USA):</b>	Not classified as dangerous for transport.
<b>TDG (Transportation of Dangerous Goods, Canada):</b>	Not classified as dangerous for transport.
<b>IMDG (International Maritime Dangerous Goods):</b>	Not classified as dangerous for transport.
<b>IATA (International Air Transport Association):</b>	Not classified as dangerous for transport.
<b>ICAO (International Civil Aviation Organization):</b>	Not classified as dangerous for transport.

## 15 REGULATORY INFORMATION

<b>TSCA Inventory Status:</b>	All components of this product are listed in the TSCA Inventory.
<b>DSCL (EEC):</b>	No data available
<b>WHMIS (Canada):</b>	No data available
<b>DSL (Canada):</b>	This product or its components are listed on or compliant with the DSL.
<b>EU EINECS/ELINCS/NLP:</b>	No data available
<b>China IECSC:</b>	No data available
<b>China IECIC (06.30.2014):</b>	No data available
<b>Australia AICS:</b>	No data available
<b>Japan ENCS:</b>	No data available
<b>Philippines PICCS:</b>	No data available
<b>Korea KECI:</b>	No data available
<b>New Zealand NZIoC:</b>	No data available
<b>CERCLA Reportable Quantity:</b>	This material does not contain any components with a CERCLA RQ.
<b>SARA 304 EHS Reportable Quantity:</b>	This material does not contain any components with a section 304 Extremely Hazardous Substance RQ.
<b>SARA 302:</b>	No chemicals in this material are subject to the reporting requirements of SARA, Title III, Section 302.
<b>SARA 313:</b>	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.
<b>Clean Air Act:</b>	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the US Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A + B). This product does not contain any hazardous air pollutants (HAP), as defined by the US Clean Air Act Section 112 (40 CFR 61). This product does not contain any chemicals listed under the US Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F). This product does not contain any chemicals listed under the US Clean Air Act Section 111 SOCM Intermediate or Final VOCs (40 CFR 60.489).
<b>Clean Water Act:</b>	This product does not contain any toxic pollutants listed under the US Clean Water Act Section 307. The following Hazardous Substances are listed under the US Clean Water Act, Section 311, Table 116.4A: Formaldehyde (CAS 50-00-0) The following Hazardous Chemicals are listed under the US Clean Water Act, Section 311, Table

**Massachusetts RTK:  
California Prop 65:**

117.3:

Formaldehyde (CAS 50-00-0)

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

WARNING: This product can expose you to one or more chemicals which is known to the State of California to cause birth defects or other reproductive harm.

Formaldehyde (CAS 50-00-0)

WARNING: This product can expose you to one or more chemicals which is known to the State of California to cause birth defects or other reproductive harm.

Methanol (CAS 67-56-1)

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**16 OTHER INFORMATION****Revision Date:** 13-Aug-2021**Compliance:** This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200**Disclaimer:** This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.