

## Dihydroxyacetone

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

Revision Date: 21-May-2024  
Supersedes: 21-Jan-2020

### 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  
**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 a hazardous substance or mixture.  
**GHS Labeling:** Not a hazardous substance or mixture.  
**GHS Hazard Pictograms:** None.  
**GHS Hazard Statements:** None.  
**GHS Precautionary Statements:** None.  
**Potential Health Hazards:** Eyes: Not expected to be an irritant.  
 Inhalation: Not expected to be an irritant.  
 Skin: Not expected to be an irritant.  
 Ingestion: Not expected to be an 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

<u>Component</u>	<u>CAS No.</u>	<u>Weight %</u>	<u>Molecular Weight</u>
1,3-dihydroxy-2-propanone	96-26-4	100%	Not available

### 4 FIRST AID MEASURES

**Eyes:** Rinse out with plenty of water. Remove contact lenses. Seek medical attention if necessary.  
**Inhalation:** Move to fresh air. Seek medical attention if necessary.  
**Skin:** Take off immediately all contaminated clothing. Rinse skin with water and/or shower. Seek medical attention if necessary.  
**Ingestion:** Make victim drink water (two glasses at most). Do Not Induce Vomiting. Never give anything by mouth to an unconscious person. Seek medical attention if necessary.

### 5 FIRE-FIGHTING MEASURES

**Suitable (and unsuitable) extinguishing media:** May be combustible at high temperature. Use appropriate media (water, foam carbon dioxide (CO<sub>2</sub>) dry powder) for adjacent fire. No unsuitable extinguish media listed.  
**Special protective equipment & precautions for firefighters:** Wear self-contained breathing apparatus and full protective clothing, including eye protection and boots.  
**Specific hazards arising from the chemical:** May be combustible at high temperatures. Development of hazardous combustion gases or vapors possible in the event of fire. See also Stability and reactivity section.

### 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>	Avoid liquid release into sewers/public water/environment. Notify environmental authorities in case of leak.
<b>Methods and material for containment and cleaning up:</b>	Cover drains. Collect, bind, and pump off spills. Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts. Dispose of absorbed material in accordance with the regulations.

## 7 HANDLING & STORAGE

<b>Precautions for safe handling:</b>	Observe label precautions Use good personal hygiene practice. See section 8 for recommendations on the use of personal protective equipment.
<b>Conditions for safe storage, incl. any incompatibilities:</b>	Keep tightly closed and dry. Store at 35°F-46°F (2°C-8°C) Keep away from heat and store away from incompatible materials (see section 10 for incompatibilities).

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Component</u>	<u>Exposure Limits</u>	<u>Basis</u>	<u>Entity</u>
Dihydroxyacetone	Not available	Not available	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>	Wear safety glasses.
<b>Inhalation:</b>	Respiratory protection required when dust is generated.
<b>Body:</b>	Wear approved chemical-resistant, impervious gloves and full protective clothing.
<b>Other:</b>	Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. 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 to powder	<b>Vapor Pressure 68 °F (20 °C):</b>	< 0.01 Pa
<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>	Not flammable
<b>Molecular Weight:</b>	No data available	<b>Upper/lower Explosive Limit:</b>	No data available
<b>pH at 68 °F (20 °C):</b>	4 - 6 at 50 g/l	<b>Flash Point:</b>	No data available
<b>Boiling Point/Range:</b>	370 °F (188 °C) at 1,013 hPa	<b>Specific Gravity:</b>	No data available
<b>Melting Point:</b>	203 °F (96.5 °C)	<b>Water Solubility at 68 °F:</b>	930 g/l
<b>Density 75.6 °F (24.2 °C):</b>	1.52 g/cm <sup>3</sup>	<b>Auto-Ignition Temperature:</b>	No data available
<b>Partition Coefficient: n-octanol/water at 20°C:</b>	Pow: 0.01129 log. Pow: 1.95	<b>Decomposition Temperature:</b>	No data available
<b>Dynamic Viscosity:</b>	No data available	<b>Explosive Properties:</b>	Not classified as explosive
<b>Oxidizing Properties:</b>	None	<b>Metal Corrosion:</b>	No data available

## 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>	No data available.

<b>Conditions to Avoid:</b>	No data available.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	No data available.
<b>Possible Hazardous Reactions:</b>	Violent reactions possible with strong oxidizing agents.

## 11 TOXICOLOGICAL INFORMATION

<b>Acute Toxicity:</b>	No data available.
<b>Skin:</b>	(Rabbit) Result: No skin irritation (OECD Test Guideline 404).
<b>Eyes:</b>	(Rabbit) Result: No eye irritation (OECD Test Guideline 405).
<b>Inhalation:</b>	(Rat) LC50: > 5.1 mg/l; 4 hours; aerosol (OECD Test Guideline 403).
<b>Ingestion:</b>	(Rat) LD50: > 16,000 mg/kg (OECD Test Guideline 401).
<b>Carcinogenicity:</b>	Did not show carcinogenic effects in animal experiments.
<b>IARC:</b>	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
<b>OSHA:</b>	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
<b>NTP:</b>	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>Genotoxicity In Vivo:</b>	(Mouse) Chromosome aberration test result: Negative (OECD Test Guideline 474).
<b>Genotoxicity in Vitro:</b>	(Mammalian cell gene) Mutation test result: Negative; Metabolic activation: with and without metabolic activation (OECD Test Guideline 476).
<b>Metabolic Activation:</b>	(Salmonella typhimurium) Ames test result: positive; Metabolic activation: with and without metabolic activation (OECD Test Guideline 471).
<b>Germ Cell Mutagenicity:</b>	Mammal cell test: chromosome aberration; Result: negative; Metabolic activation: with and without metabolic (OECD Test Guideline 473).
<b>Specific Target Organ Toxicity:</b>	No data available.
<b>Repeated Dose Toxicity:</b>	Sub chronic toxicity.
<b>Reproductive Toxicity:</b>	No data available.
<b>Sensitization:</b>	(Mouse) Result: Does not cause skin sensitization (OECD Test Guideline 429).
<b>Likely Route of Exposure:</b>	Inhalation, Eye contact, Skin contact, Ingestion.
<b>Hazardous Properties:</b>	Cannot be excluded but are unlikely when the product is handled appropriately.
<b>Further Information:</b>	Therapeutically used substance. Substance which occurs in the human body under physiological conditions.

## 12 ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	Discharge into the environment must be avoided.
<b>Aquatic Vertebrate:</b>	(Zebra fish) Static Test LC50: 100 mg/l; 96 hours; Analytical monitoring: yes (OECD Test Guideline 203)
<b>Aquatic Invertebrate:</b>	EC50 (Daphnia magna): > 100 mg/l; 48 hours (OECD Test Guideline 202)
<b>Terrestrial:</b>	(Green algae) Growth inhibition NOECD: >= 100 mg/l; 72 hours; Analytical monitoring: yes (OECD Test Guideline 201 Limit Test)
	(Green algae) Growth inhibition EC50: > 100 mg/l; 72 hours; Analytical monitoring: yes (OECD Test Guideline 201 Limit Test)
	(Activated sludge) Respiration Inhibition EC50: > 1,000 mg/l; 3 hours (OECD Test Guideline 209)
<b>Persistence and Degradability:</b>	77%; 28 days; aerobic Biochemical oxygen demand: Readily biodegradable (OECD Test Guideline 301D).
<b>Bioaccumulative Potential:</b>	Bioaccumulation is not expected.
<b>Mobility in Soil:</b>	No data available.
<b>PBT and vPvB Assessment:</b>	No data available.
<b>Other Adverse Effects:</b>	Surface tension: 68.85 mN/m at 68°F/20°C (OECD Test Guideline 115)

## 13 DISPOSAL CONSIDERATIONS

<b>Waste Residues:</b>	Leave chemicals in original containers. No mixing with other waste. 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>	Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the

product itself. 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 in the meaning of transport regulations.
<b>TDG (Transportation of Dangerous Goods, Canada):</b>	Not classified as dangerous in the meaning of transport regulations.
<b>IMDG (International Maritime Dangerous Goods):</b>	Not classified as dangerous in the meaning of transport regulations.
<b>IATA (International Air Transport Association):</b>	Not classified as dangerous in the meaning of transport regulations.
<b>ICAO (International Civil Aviation Organization):</b>	Not classified as dangerous in the meaning of transport regulations.

## 15 REGULATORY INFORMATION

<b>TSCA Inventory Status:</b>	This product is regulated under the Food, Drug, and Cosmetic Act and is exempt from TSCA.
<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>SARA 302:</b>	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
<b>SARA 304:</b>	This material does not contain any components with a section 304 extremely hazardous substances reportable quantity.
<b>CERCLA:</b>	This material does not contain any components with a CERCLA reportable quantity.
<b>Clean Air Act:</b>	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. 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 U.S. Clean Air Act Section 112 (40 CFR 61). This product does not contain any chemicals listed under the U.S. 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 U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).
<b>Clean Water Act Section:</b>	This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307 The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A: Formaldehyde (50-00-0) The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3: Formaldehyde (50-00-0)
<b>MA Right to Know:</b>	No components are subject to the Massachusetts Right to Know Act.
<b>Canada (DSL):</b>	This product or its components are listed on or compliant with the DSL.
<b>California Prop. 65:</b>	Proposition 65: WARNING: This product can expose you to chemicals including Formaldehyde (50-00-0) and methanol (67-56-1) which is known to the State of California to cause cancer or reproductive toxicity. For more information, go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

## 16 OTHER INFORMATION

<b>Revision Date:</b>	21-May-2024
<b>Compliance:</b>	This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200
<b>Disclaimer:</b>	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.