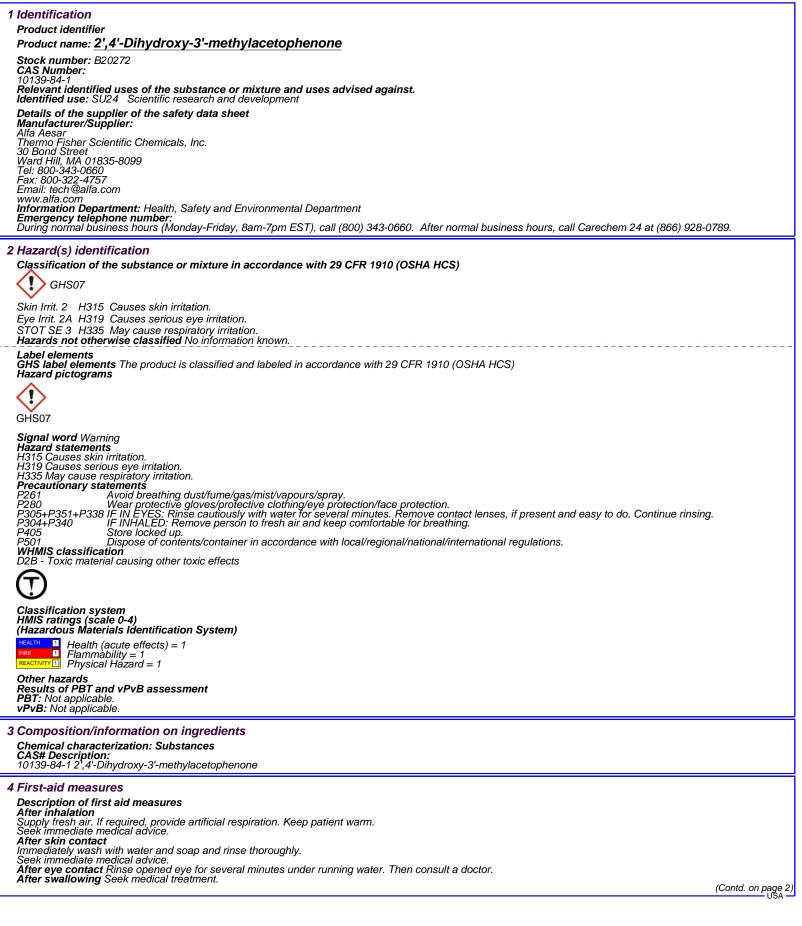


Safety Data Sheet per OSHA HazCom 2012



## Product name: 2',4'-Dihydroxy-3'-methylacetophenone

(Contd. of page 1)

	Information for doctor Most important symptoms and effects Indication of any immediate medical a	s, both acute and delayed No further relevant information available. Attention and special treatment needed No further relevant information available.	(Contd. of page 1)	
5	5 Fire-fighting measures Extinguishing media Suitable extinguishing agents Carbon Special hazards arising from the subs If this product is involved in a fire, the foll Carbon monoxide and carbon dioxide Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.	dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. s <b>tance or mixture</b> llowing can be released:		
6 Accidental release measures Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Environmental precautions: Do not allow material to be released to the environment without proper governmental permits. Methods and material for containment and cleaning up: Ensure adequate ventilation. Prevention of secondary hazards: No special measures required. Reference to other sections See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information.				
<b>7</b> Handling and storage         Handling <b>Precautions for safe handling</b> Keep container tighty sealed.         Store in cool, dry place in tightly closed containers.         Ensure good ventilation at the workplace.         Information about protection against explosions and fires: No information known.         Conditions for safe storage, including any incompatibilities         Storage         Requirements to be met by storerooms and receptacles: No special requirements.         Information about storage in one common storage facility: Store away from oxidizing agents.         Further information about storage conditions:         Keep container tightly sealed.         Store in cool, dry conditions in well sealed containers.         Store in cool, dry conditions in well sealed containers.         Store in cool, dry conditions in well sealed containers.         Store in cool, No further relevant information available.				
<ul> <li>8 Exposure controls/personal protection</li> <li>Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.</li> <li>Control parameters Components with limit values that require monitoring at the workplace: Not required.</li> <li>Additional information: No data</li> <li>Exposure controls Personal protective equipment General protective equipment General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed.</li> <li>Keep away from foodstuffs, beverages and feed.</li> <li>Remove all solied and contaminated clothing immediately.</li> <li>Wash hands before breaks and at the end of work.</li> <li>Avoid contact with the eyes and at the end of work.</li> <li>Breathing equipment: Use suitable respirator when high concentrations are present.</li> <li>Protection of hands: Impervious gloves Check protective gloves prior to each use for their proper condition.</li> <li>The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.</li> <li>Eye protection: Safety glasses</li> <li>Body protection: Protective work clothing.</li> </ul>				
9 Physical and chemical properties				
	Information on basic physical and che General Information Appearance: Form: Color: Odor: Odor threshold:			
	pH-value:	Not applicable.		
	Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	148-150 °C (298-302 °F) Not determined Not determined		
	Flash point: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting:	Not applicable Not determined. Not determined Not determined Not determined.		
	Danger of explosion:	Product does not present an explosion hazard.	(Contd. on page 3)	

## Product name: 2',4'-Dihydroxy-3'-methylacetophenone

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Product name: 2',4'-Dihydroxy-3'-m	· ·	Contra of 0
Explosion limits:		(Contd. of page 2
Lower:	Not determined	
Upper: Vapor pressure:	Not determined Not applicable.	
Density:	Not determined	
Relative density Vapor density	Not determined. Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with Water:	Not determined	
Partition coefficient (n-octanol/water		
Viscosity: dynamic:	Not applicable.	
kinematic:	Not applicable.	
Other information	No further relevant information available.	
10 Stability and reactivity		
Reactivity No information known.		
Chemical stability Stable under recom	mended storage conditions. <b>to be avoided:</b> Decomposition will not occur if used and stored according to specifications.	
Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Possibility of hazardous reactions No dangerous reactions known		
Conditions to avoid No further relevar	nt information available.	
Incompatible materials: Oxidizing age Hazardous decomposition products:	nts Carbon monoxide and carbon dioxide	
11 Toxicological information Information on toxicological effects		
Acute toxicity: No effects known.		
LD/LC50 values that are relevant for Skin irritation or corrosion: Causes s		
Eve irritation or corrosion: Causes se	erious eve irritation.	
Sensitization: No sensitizing effects kn Germ cell mutagenicity: No effects kn	nown	
Carcinogenicity: No classification data	on carcinogenic properties of this material is available from the EPA, IARC, NTP, USHA or ACGIH.	
Reproductive toxicity: No effects know	NN.	
Specific target organ system toxicity	r - repeated exposure: No effects known. r - single exposure: May cause respiratory irritation.	
Aspiration hazard: No effects known.		
Subacute to chronic toxicity: No effect Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.	
12 Ecological information		
Toxicity Aquatic toxicity: No further relevant in	formation available.	
Persistence and degradability No further relevant information available. Bioaccumulative potential No further relevant information available. Mobility in soil No further relevant information available.		
General notes:	the environment without proper governmental permits.	
Do not allow undiluted product or large	quantities to reach ground water, water course or sewage system.	
Avoid transfer into the environment. Results of PBT and vPvB assessmer		
PBT: Not applicable.	10	
vPvB: Not applicable.	ant information quallable	
Other adverse effects No further relev	ant mormation available.	
13 Disposal considerations		
Waste treatment methods Recommendation Consult state local	or national regulations to ensure proper disposal.	
Uncleaned packagings:		
Recommendation: Disposal must be n	nade according to official regulations.	
14 Transport information		
Not a hazardous material for transporta UN-Number	นงก.	
DOT, IMDG, IATA	None	
UN proper shipping name	Mana	
DOT, IMDG, IATA Transport hazard class(es)	None	
DOT, ADR, IMDG, IATA		
Class	None	
Packing group DOT, IMDG, IATA	None	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
	x II of MARPOL73/78 and the IBC Code Not applicable.	
Transport/Additional information:	Not dangerous according to the above specifications.	
DOT		
Marine Pollutant (DOT):	No	
		USA -

USA (Contd. on page 4)

## Product name: 2',4'-Dihydroxy-3'-methylacetophenone

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15 Regulatory information
Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms
GHS07
Signal word Warning         Hazard statements         H315 Causes skin irritation.         H319 Causes serious eye irritation.         H335 May cause respiratory irritation.         H335 May cause respiratory irritation.         Precautionary statements         P261       Avoid breathing dust/fume/gas/mist/vapours/spray.         P280       Wear protective gloves/protective clothing/eye protection/face protection.         P305+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.         P304+P340       IF INHALED: Remove person to fresh air and keep comfortable for breathing.         P405       Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
National regulations This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. This product must be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes. SARA Section 313 (specific toxic chemical listings) Substance is not listed. California Proposition 65
Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified individuals. Other regulations. limitations and prohibitive regulations
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
16 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.
Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms:         IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association (AAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA)         WHMIS: Workplace Hazardous Materials Information System (Canada) LCSO: Lethal dose, 50 percent         USD: Lethal dose, 50 percent         VPW: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) MARC: International Agency (USA)         NTP: National Agency (USA)
IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)
USA