

Material Safety Data Sheet

According to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

Section 1. Identification of the Substance/Mixture

- 1.1 Product Name:** Kojic Acid
Synonyms: 5-hydroxy-2-(hydroxymethyl)-4H-pyran-4-one; NSC 1942
- 1.2 Relevant identified uses of the substance or mixture and uses advised against: Relevant**
Identified uses: For research use only, not for human or veterinary use.

Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**
- 2.2 Label Elements:**
- GHS Signal Word:** None
- GHS Hazard Phrases:**
- Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.
- GHS Precaution Phrases:**
- No phrases apply.
- GHS Response Phrases**
- No phrases apply.
- GHS Storage and Disposal Phrases:**
- Please refer to Section 7 for Storage and Section 13 for Disposal information.
- 2.3 Adverse Human Health** Material may be irritating to the mucous membranes and upper respiratory tract
- Effects and Symptoms:** May be harmful by inhalation, ingestion, or skin absorption.
May cause eye, skin, or respiratory system irritation.
- To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
501-30-4 UQ0875000	Kojic acid	100.0 %	207-922-4 NA	No data available.

Section 4. First Aid Measures

4.1 Description of First

Aid Measures:

- In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel.
 Get immediate medical attention.
- In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated
 Get immediate medical attention.
- In Case of Eye Contact:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

Section 5. Fire Fighting Measures

- 5.1 Suitable Extinguishing** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray
Media: Use water spray to cool fire-exposed containers.
- Unsuitable Extinguishing** A solid water stream may be inefficient.
Media:
- 5.2 Flammable Properties and** No data available.
Hazards:
- Flash Pt:** No data.
- Explosive Limits:** LEL: No data. UEL: No data.
- Autoignition Pt:** No data.
- Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

Section 6. Accidental Release Measures

- | | |
|---|---|
| 6.1 Protective Precautions, Protective Equipment and Emergency Procedures: | Avoid raising and breathing dust, and provide adequate ventilation.
As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves). |
| 6.2 Environmental Precautions: Methods and Material For Containment and Cleaning Up: | Take steps to avoid release into the environment, if safe to do so.
Contain spill and collect, as appropriate.
Transfer to a chemical waste container for disposal in accordance with local regulations. |

Section 7. Handling and Storage

- | | |
|---|--|
| 7.1 Precautions To Be Taken in Handling: | Avoid breathing dust/fume/gas/mist/vapours/spray
Avoid prolonged or repeated exposure. |
| 7.2 Precautions To Be Taken in Storing: | Keep container tightly closed.
Store in accordance with information listed on the product insert. |

Section 8. Exposure Controls/Personal Protection

- | | |
|---|---|
| 8.1 Exposure Parameters: | |
| 8.2 Exposure Controls: | |
| 8.2.1 Engineering Controls (Ventilation etc.): | Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. |
| 8.2.2 Personal protection equipment: | |
| Eye Protection: | Safety glasses |
| Protective Gloves: | Compatible chemical-resistant gloves |
| Other Protective Clothing: | Lab coat |
| Respiratory Equipment (Specify Type): | NIOSH approved respirator, as conditions warrant. |
| Work/Hygienic/Maintenance Practices: | Do not take internally.
Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.
Wash thoroughly after handling.
No data available. |

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical States:	[<input type="checkbox"/>] Gas [<input type="checkbox"/>] Liquid [X] Solid	
Appearance and Odor:	A crystalline solid	
pH:	No data.	
Melting Point:	No data.	
Boiling Point:	No data.	
Evaporation Rate:	No data.	
Flammability (solid, gas):	No data available.	
Explosive Limits:	LEL: No data.	UEL: No data.
Vapor Pressure (vs. Air or Mm Hg):	No data.	
Vapor Density (vs. Air = 1):	No data.	
Specific Gravity (Water = 1):	No data.	
Solubility in Water:	No data	
Solubility Notes:	~5 mg/ml in PBS (pH 7.2); ~5 mg/ml in EtOH; ~ 16 mg/ml in DMSO;	
Octanol/Water Partition	No data.	

See actual entry in RTECS for complete information. Kojic Acid RTECS Number: UQ0875000

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
501-30-4	Kojic acid	n.a.	3	n.a.	n.a.

Section 10. Stability and Reactivity

10.1 Reactivity:	No data available.
10.2 Stability:	Unstable [<input type="checkbox"/>] Stable [X]
10.3 Stability Note(s):	Stable if stored in accordance with information listed on the product insert.
Polymerization:	Will occur [<input type="checkbox"/>] Will not occur [X]
10.4 Conditions To Avoid:	No data available.
10.5 Incompatibility-Materials	Strong acids
To Avoid:	Strong bases
Hazardous Decomposition or Byproducts	carbon dioxide
	carbon monoxide

Section 11. Toxicological Information

Information on	The toxicological effects of this product have not been thoroughly studied.
Toxicological Effects:	Kojic Acid - Toxicity Data: Oral LDLO (mouse): 4 gm/kg; Intraperitoneal LD50 (mouse): 250 mg/kg; Subcutaneous LDLO (mouse): 1500 mg/kg; Oral TDLO (rat): 1000 mg/kg;
Chronic Toxicological Effects:	Kojic Acid - Investigated as a drug, mutagen, natural product, and tumorigen. Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.

Section 12. Ecological Information

12.1 Toxicity:	Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.
12.2 Persistence and Degradability:	No data available.
12.3 Bioaccumulative Potential:	No data available.
12.4 Mobility in Soil:	No data available.
12.5 Results of PBT and vPvB assessment:	No data available.
Other adverse effects:	No data available.

Section 13. Disposal Considerations

13.1 Waste Disposal Method:	Dispose in accordance with local, state, and federal regulations.
------------------------------------	---

Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT):	
DOT Proper Shipping Name:	Not dangerous goods.
DOT Hazard Class:	
UN/NA Number:	
14.2 LAND TRANSPORT (European ADR/RID):	
ADR/RID Shipping Name:	Not dangerous goods.
UN Number:	
Hazard Class:	
14.3 AIR TRANSPORT (ICAO/IATA):	
ICAO/IATA Shipping Name:	Not dangerous goods.
Additional Transport	Transport in accordance with local, state, and federal regulations.

Section 15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
501-30-4	Kojic acid	No	No	No
CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists		
501-30-4	Kojic acid	CAA HAP, ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No		
Regulatory Information Statement: This SDS was prepared in accordance with 29 CFR 1910. 1200 and Regulation (EC)No. 1272/2008.				