


**SECTION 1: PRODUCT IDENTIFICATION**

<b>PRODUCT NAME</b>	<b>KOJIC ACID</b>
<b>PRODUCT CODE</b>	<b>1768</b>
<b>SUPPLIER</b>	<b>MEDISCA Inc.</b> Tel.: 1.800.932.1039   Fax.: 1.855.850.5855 626 Tom Miller Road, Plattsburgh, NY, 12901 <b>MEDISCA Pharmaceutique Inc.</b> Tel.: 1.800.665.6334   Fax.: 514.338.1693 4509 Rue Dobrin, St. Laurent, QC, H4R 2L8 <b>MEDISCA Australia PTY LTD</b> Tel.: 1.300.786.392   Fax.: 61.2.9700.9047 Unit 7, Heritage Business Park 5-9 Ricketty Street, Mascot, NSW 2020
<b>EMERGENCY PHONE</b>	CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 NSW Poisons Information Centre: 131 126 National Chemical Emergency Centre 44(0)1235239670
<b>RECOMMENDED USES</b>	Pharmaceutical Manufacturing
<b>RESTRICTIONS ON USE</b>	Not applicable

**SECTION 2: HAZARDS IDENTIFICATION**

<b>GHS CLASSIFICATION</b>	Acute Toxicity - Oral (Category 5) Acute Toxicity - Dermal (Category 5) Sensitization - Skin (Category 1B) Eye Irritation (Category 2B) Acute Aquatic Toxicity (Category 2) Carcinogenicity (Category 2)
<b>PICTOGRAM</b>	
<b>SIGNAL WORD</b>	Warning
<b>HAZARD STATEMENT(S)</b>	May be harmful if swallowed. May be harmful if in contact with skin. Causes eye irritation. May cause an allergic skin reaction. Toxic to aquatic life. Suspected of causing cancer.
<b>ADVERSE PHYSIOCHEMICAL, HUMAN HEALTH AND ENVIRONMENTAL EFFECTS</b>	Not Applicable.

<b>PRECAUTIONARY STATEMENT(S)</b>	<b>Prevention</b>	Avoid breathing dust, fume, gas, mist, vapors, spray. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Obtain, read and follow all special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye and face protection and hearing protection. Wash hands thoroughly after handling. Do not touch eyes.		
	<b>Response</b>	IF SWALLOWED: Get medical help. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical help advice/attention. Take off contaminated clothing and wash it before reuse. IF EXPOSED OR CONCERNED: Get medical advice. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical help.		
	<b>Storage</b>	Store locked up.		
	<b>Disposal</b>	Dispose of contents and/or container in accordance with local regulations.		
<b>HMIS CLASSIFICATION</b>	<b>Health Hazard</b>	1	<b>Flammability</b>	0
	<b>Reactivity</b>	0	<b>Personal Protection</b>	B

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<b>CHEMICAL NAME</b>	2-Hydroxymethyl-5-hydroxy-y-pyrone
<b>BOTANICAL NAME</b>	Not applicable
<b>SYNONYM</b>	5-Hydroxy-2-hydroxymethyl-4H-4-pyranone
<b>CHEMICAL FORMULA</b>	C <sub>6</sub> H <sub>6</sub> O <sub>4</sub>
<b>CHEMICAL FAMILY</b>	Not available
<b>CAS NUMBER</b>	501-30-4
<b>ALTERNATE CAS NUMBER</b>	Not applicable
<b>MOLECULAR WEIGHT</b>	142.1094

COMPOSITION	CHEMICAL NAME	CAS NUMBER	EC NUMBER	% BY WEIGHT
	KOJIC ACID	501-30-4	207-922-4	>99.0

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as health hazards and hence require reporting in this section.

<b>NOTES</b>	Kojic acid is a fungal metabolite commonly produced by many species of <i>Aspergillus</i> , <i>Acetobacter</i> and <i>Penicillium</i> . <i>Aspergillus flavus</i> is used in the production of a number of foods.
--------------	---

## SECTION 4: FIRST-AID MEASURES

<b>IN CASE OF EYE CONTACT</b>	Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid.
<b>IN CASE OF SKIN CONTACT</b>	Wash with soap & water for 15 minutes. If irritation persists seek medical aid.
<b>IF SWALLOWED</b>	Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.
<b>IF INHALED</b>	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**MEDICAL ATTENTION AND SPECIAL TREATMENT**

Get emergency medical help.

**SYMPTOMS CAUSED BY EXPOSURE**

Not expected to present a significant hazard under anticipated conditions of normal use.

**SECTION 5: FIREFIGHTING MEASURES****SPECIFIC HAZARDS ARISING FROM THE CHEMICAL**

Not applicable.

**FLAMMABLE PROPERTIES**

May be combustible at high temperature.

**HAZARDOUS COMBUSTION PRODUCTS**

Under fire conditions, hazardous fumes will be present.

**SUITABLE & UNSUITABLE EXTINGUISHING MEDIA**

**Small fire:** dry chemical, CO<sub>2</sub> or water spray. **Large fire:** dry chemical, CO<sub>2</sub>, alcohol resistant foam or water spray. Do not get water inside containers.

**PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**METHODS & MATERIAL FOR CONTAINMENT**

On land, sweep or shovel into suitable containers. Minimize generation of dust.

**CLEANUP PROCEDURE**

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Shut off all sources of ignition. Evacuate the area. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean the affected area. Do not flush into sewerage system or to drains.

**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.

**SECTION 7: HANDLING AND STORAGE****PRECAUTIONS FOR SAFE HANDLING**

Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling. Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.

**CONDITIONS FOR SAFE STORAGE**

Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.

**STORAGE CONDITIONS**

Store in original container, tightly sealed, protected from direct sunlight and moisture.

**SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION**
**Chemical Name: KOJIC ACID CAS #: 501-30-4**

	Country	Limit value-8 hours		Limit value-Short Term		IDLH	REL	Advisory	Notes
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>				
OSHA	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
ACGIH	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
NIOSH	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
WEEL	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
HSIS	Australia	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
HSE	UK	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
GESTIS	Add Country	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A

N/L = Not listed ; N/A = Not Available

PELs are 8-hour TWAs = Limit value - Eight hours

Ceiling or Short-Term TWA = STEL = Limit value - Short term

**EXPOSURE GUIDELINES**

 Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable fraction: 5 mg/m<sup>3</sup>
**PERSONAL PROTECTIVE EQUIPMENT**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. **Skin:** Wear appropriate gloves to prevent skin exposure. **Clothing:** Wear appropriate protective clothing to minimize contact with skin. **Respirators:** Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. **Thermal Hazards:** For products representing a thermal hazard, appropriate Personal Protective Equipment should be used.

**SPECIFIC ENGINEERING CONTROLS**

Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower.

**BIOLOGICAL MONITORING**

Not available

**CONTROL BANDING**

Not available

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**
**PHYSICAL STATE**

Solid

**DESCRIPTION**

White to yellowish-white, odorless powder.

**SOLUBILITY**

Easily soluble in water, alcohol and acetone. Slightly soluble in ether, ethyl acetate, chloroform and pyridine.

**ODOR**

Odorless

**FLAMMABILITY**

May be combustible at high temperature

**AUTO-IGNITION TEMPERATURE**

Not available

**BOILING POINT**

Not available

**DECOMPOSITION TEMPERATURE**

Not available

<b>EVAPORATION RATE</b>	Not available	<b>EXPLOSIVE LIMIT</b>	Not available	<b>FLASH POINT</b>	Not available
<b>log P (OCTANOL-WATER)</b>	-0.64	<b>LOWER FLAMMABLE/EXPLOSIVE LIMIT(S)</b>	Not available	<b>MELTING/FREEZING POINT</b>	(152-155)°C, (305.6-311)°F
<b>PARTICLE CHARACTERISTICS</b>	Not available	<b>OXIDIZING PROPERTY</b>	Not available	<b>pH</b>	4.7 (1%)
<b>RELATIVE DENSITY (WATER = 1)</b>	Not available	<b>SPECIFIC GRAVITY</b>	Not available	<b>UPPER FLAMMABLE/EXPLOSIVE LIMIT(S)</b>	Not available
<b>VAPOR DENSITY (AIR = 1)</b>	Not available	<b>VAPOR PRESSURE</b>	3.21E-06 mm Hg	<b>VISCOSITY</b>	Not available

The physical data presented above are typical values and should not be construed as a specification.

## SECTION 10: STABILITY AND REACTIVITY

<b>REACTIVITY</b>	Not established.
<b>CHEMICAL STABILITY</b>	Stable under recommended storage conditions.
<b>INCOMPATIBLE MATERIALS</b>	Strong acids, strong bases.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and other gases may occur.
<b>HAZARDOUS POLYMERIZATION</b>	Will not occur.
<b>POSSIBILITY OF HAZARDOUS REACTION</b>	Not established.
<b>CONDITIONS TO AVOID</b>	Moisture, sunlight and extreme temperatures.

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>ACUTE TOXICITY</b>	Oral: Rat: LD50: (mg/kg): 2350 Dermal: Rat: LD50: (mg/kg): > 2000 Inhalation: Rat: LC50: (mg/L/4hr): Not available
<b>SKIN CORROSION/IRRITATION</b>	Based on available data, the classification criteria are not met. Kojic acid was not irritant to rabbit skin or mucous membranes but slightly photoirritant.
<b>SERIOUS EYE DAMAGE/EYE IRRITATION</b>	Causes eye irritation (pH 4.7)
<b>RESPIRATORY SENSITIZATION</b>	Due to lack of data the classification is not possible.
<b>SKIN SENSITIZATION</b>	Based on available data, the classification criteria are not met. Suspected skin sensitiser: The Toolbox profiler 'Protein binding alerts for skin sensitization by OASIS v1.3' gives an alert for skin sensitisation.

<b>GERM CELL MUTAGENICITY</b>	Based on available data, the classification criteria are not met. Suspected mutagen: The Toolbox profiler 'DNA alerts for AMES, MN and CA by OASIS v.1.3' gives an alert for mutagenicity; The Toolbox profiler 'Protein binding alerts for Chromosomal aberration by OASIS v1.1' gives an alert for mutagenicity; In vivo micronucleus test outcome positive according to ISSMIC; mutagen according to ISSSTY.								
<b>CARCINOGENICITY</b>	<table border="0"> <tr> <td><b>OSHA</b></td> <td>KOJIC ACID is not listed.</td> </tr> <tr> <td><b>NTP</b></td> <td>KOJIC ACID is not listed.</td> </tr> <tr> <td><b>IARC</b></td> <td>KOJIC ACID is listed in group 3 (not classifiable as to its carcinogenicity to humans).</td> </tr> <tr> <td><b>California Proposition</b></td> <td>This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.</td> </tr> </table>	<b>OSHA</b>	KOJIC ACID is not listed.	<b>NTP</b>	KOJIC ACID is not listed.	<b>IARC</b>	KOJIC ACID is listed in group 3 (not classifiable as to its carcinogenicity to humans).	<b>California Proposition</b>	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
<b>OSHA</b>	KOJIC ACID is not listed.								
<b>NTP</b>	KOJIC ACID is not listed.								
<b>IARC</b>	KOJIC ACID is listed in group 3 (not classifiable as to its carcinogenicity to humans).								
<b>California Proposition</b>	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.								
<b>ADDITIONAL CARCINOGENICITY INFORMATION</b>	<p>From the studies available it is concluded that kojic acid is a non-genotoxic carcinogen in rodents. For the thyroid tumour induction a tumour promoting effect based on hormonal disruption is obvious. The goitrogenic (thyrotropic) effect is linked to inhibition of iodine uptake, a subsequent decrease in serum T3/T4 levels followed by a compensatory increase in TSH release with the consequence of thyroid cell proliferation. In contrast to rodents an increase in TSH in humans does not pose a significant concern regarding potential thyroid carcinogenesis in humans. Despite these comments, a threshold on the basis of hormonal disruption can be assumed.</p> <p>Suspected carcinogen: The Toolbox profiler 'Carcinogenicity (genotox and nongenotox) alerts by ISS' gives an alert for carcinogenicity.</p>								
<b>REPRODUCTIVE TOXICITY</b>	Based on available data, the classification criteria are not met.								
<b>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE</b>	Due to lack of data the classification is not possible.								
<b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b>	Due to lack of data the classification is not possible.								
<b>ASPIRATION HAZARDS</b>	Due to lack of data the classification is not possible.								
<b>SIGNS AND SYMPTOMS OF EXPOSURE</b>	<p><b>ROUTES OF EXPOSURE:</b> Oral, Dermal, Inhalation, Eye contact</p> <p><b>EARLY ONSET SYMPTOMS RELATED TO EXPOSURE:</b> Not available</p> <p><b>DELAYED HEALTH EFFECT FROM EXPOSURE:</b> Not available</p>								
<b>POTENTIAL HEALTH EFFECTS</b>	<table border="0"> <tr> <td><b>Inhalation</b></td> <td>May be harmful if inhaled. May cause respiratory tract irritation.</td> </tr> <tr> <td><b>Ingestion</b></td> <td>May be harmful if swallowed.</td> </tr> <tr> <td><b>Skin</b></td> <td>May be harmful if absorbed through skin. May cause skin irritation, sensitization.</td> </tr> <tr> <td><b>Eyes</b></td> <td>Causes eye irritation.</td> </tr> </table>	<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.	<b>Ingestion</b>	May be harmful if swallowed.	<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation, sensitization.	<b>Eyes</b>	Causes eye irritation.
<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.								
<b>Ingestion</b>	May be harmful if swallowed.								
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation, sensitization.								
<b>Eyes</b>	Causes eye irritation.								

## SECTION 12: ECOLOGICAL INFORMATION

<b>ECOTOXICITY</b>	<p>EC50: 48 Hr: Crustacea: Daphnia (mg/L): &lt;1*</p> <p>LC50: 96 Hr: Fish: (mg/L): 8.44*</p> <p>EC50: 72 or 96 Hr: Algae (or other aqua plants): (mg/L): Not available</p>
<b>PERSISTENCE AND DEGRADABILITY</b>	Not available
<b>BIOACCUMULATIVE POTENTIAL</b>	LogPow: -0.64
<b>MOBILITY IN SOIL</b>	<p>Soluble in water. (9.35E+05 mg/L) (25 °C)</p> <p>Henry's Law Constant: 2.39E-07 atm·m<sup>3</sup>/mole (25 °C)</p>

**OTHER ADVERSE EFFECTS**

Not available

This product is not intended to be released into the environment.

**NOTES**

\*Danish QSAR database

**SECTION 13: DISPOSAL CONSIDERATIONS**
**DISPOSAL METHODS**

Dispose of in accordance with federal / local laws and regulations. Avoid release into the environment.

**SECTION 14: TRANSPORT INFORMATION**
**UN PROPER SHIPPING NAME**

Not dangerous good

**UN NUMBER**

Not applicable

**CLASS**

Not applicable

**PACKING GROUP**

Not applicable

**AUSTRALIA**
**HAZCHEM**

Not applicable

**EU**
**TRANSPORT IN BULK ACCORDING  
TO ANNEX II OF MARPOL 73/78  
AND THE IBC CODE**

Not listed

**ENVIRONMENTAL HAZARDS**

Not available

**SPECIAL SHIPPING  
INFORMATION**

Not applicable

**SECTION 15: REGULATORY INFORMATION**
**UNITED STATES REGULATIONS**

Chemical Name & CAS	CERCLA 40 CFR Part 302.4	SARA (Title III) 40 CFR	EPA 40 CFR Part 355		Pennsylvania	Right-to-know		California Prop 65
			Appendix A	Appendix B		New Jersey	Massachusetts	
KOJIC ACID 501-30-4	N/L	N/L	N/L	N/L	N/L	N/L	N/L	N/L

N/L = Not Listed; X = Listed

**AUSTRALIAN REGULATIONS**

Chemical Name & CAS	Poisons and Therapeutic Goods	Therapeutic Goods Act	Code of Practices - Illicit Drug	Poisons Standard	Work Health and Safety Regulations	Inventory of Industrial Chemicals
KOJIC ACID 501-30-4	N/L	N/L	N/L	N/L	N/L	N/L

N/L = Not Listed

**EU REGULATIONS**

Chemical Name & CAS	REACH ANNEX XVII	REACH ANNEX XIV	EC 1005/2009	EC 850/2004	EC 1107/2009	PIC - Prior Informed Consent Regulation	EC 2012/18
KOJIC ACID 501-30-4	N/L	N/L	N/L	N/L	N/L	N/L	N/L

N/L = Not Listed; X = Listed

Any EU regulation not listed above is not applicable to this product.

SUBJECT TO INTERNATIONAL AGREEMENT                      Not applicable

## SECTION 16: OTHER INFORMATION

### REFERENCES

#### ABBREVIATIONS AND ACRONYMS

Available upon request

**ACGIH** - American Conference of Governmental Industrial Hygienists; **AIHA WEEL** – American Industrial Hygiene Association Workplace Environment Exposure Levels; **CAESAR** – Computer Assisted Evaluation of industrial chemical Substances According to Regulations; **CAS** – Chemical Abstract Service; **CERCLA** – Comprehensive Environmental Response, Compensation, and Liability Act; **EC50** – Effective Concentration, 50%; **EPA** – Environmental Protection Agency; **GHS** – Global Harmonized System; **HMIS** – Hazardous Materials Information System; **HSE** – Health and Safety Executive; **HSIS** – Hazardous Substances Information System; **IARC** – International Agency for Research on Cancer; **IDLH** - Immediately Dangerous to Life or Health; **IRFMN** – Ready Biodegradability Model; **ISS** – Istituto Superiore Sanità; **LC50** – Lethal Concentration, 50%; **LD50** – Lethal Dose, 50%; **MSHA** - Mine Safety and Health Administration; **NIOSH** – National Institute for Occupational Safety and Health; **NTP** – National Toxicology Program; **OSHA PEL** – Occupational Safety & Health Administration Permissible Exposure Limits; **QSAR** – Quantitative Structure-activity relationship; **REL** - Recommended Exposure Limit; **SARA** – Superfund Amendments and Reauthorization Act; **STEL** – Short Term Exposure Limit; **TLV** – Threshold Limit Value; **TWA** – Time Weighted Average; **WHMIS** – Workplace Hazardous Materials Information System

### LAST REVISION

03/2023

### SUPERSEDES

02/2021

For a list of changes to the SDS since the last version, please communicate with MEDISCA at [www.medisca.com](http://www.medisca.com)

### DISCLAIMER

This document was created in accordance with OSHA, Safe Work Australia and WHMIS regulations. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. MEDISCA® shall not be held liable for any damage resulting from handling or from contact with the above product. Recipients of the product must take responsibility for observing existing laws and regulations.

### SUPPLEMENTARY INFORMATION

For all country specific requirements not outlined on this Safety Data Sheet, please request Supplementary Page to this Safety Data Sheet.