

SAFETY DATA SHEET

according to Regulation (EC) No.1907/2006

Version 1.0 Revision Date 20.06.2013

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Material Safety Data Sheet Erythrulose msds

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifiers

Product name : L-(+)-Erythrulose
INCI Name : Erythrulose
Product Number : C01001B
Brand : Erytan
CAS-No. : 533-50-6
ELINCS : 443-800-9

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Colorant or self tanning agent in personal care products,
Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : M.C.Biotec Inc.
40 Ma Jia Street
Nanjing, China
Tel : +86-25-86620042
Fax : +86-25-86624072
E-mail address : mc@mcbiotec.com

1.4 Emergency telephone number

Emergency Phone # : +86-25-86620042

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards - none

Section 3: Composition and Information on Ingredients

3.1 Substances

Synonyms : L-Glycero-2-tetrolulose
S-1,3,4-Trihydroxy-2-butanone
Formula : C₄H₈O₄
Molecular Weight : 120.1 g/mol

A) Ingredient	INCI Name	CAS No.	EC No.	Classification	Amount
As listed in the CTFA Dictionary	Erythulose	533-50-6	443-800-9	---	A
B) Additives					
B) Additives	INCI Name	CAS No.	EC No.	Classification	Amount
Solvent	Water	---	---	---	C
Preservative	None	---	---	---	---
Others (buffers, antioxidants, colorants)	None	---	---	---	---
# CTFA Dictionary					
FDA-Code (A = > 50%, B = 25-50%, C = 10-25%, D = 5-10%, E = 1-5%, F = 0.1-1%, G = < 0.1%)					
Section 4: First Aid Measures					
<p>4.1 Description of first aid measures</p> <p>General advice Consult a physician. Show this safety data sheet to the doctor in attendance.</p> <p>If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.</p> <p>In case of skin contact Wash off with soap and plenty of water. Consult a physician.</p> <p>In case of eye contact Flush eyes with water as a precaution.</p> <p>If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.</p> <p>4.2 Most important symptoms and effects, both acute and delayed To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.</p> <p>4.3 Indication of any immediate medical attention and special treatment needed no data available</p>					
Section 5: Fire Fighting Measures					
<p>5.1 Extinguishing media</p> <p>Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.</p> <p>5.2 Special hazards arising from the substance or mixture Carbon oxides</p> <p>5.3 Advice for firefighters Wear self contained breathing apparatus for fire fighting if necessary.</p> <p>5.4 Further information no data available</p>					

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling

no data available

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hygroscopic. Store under inert gas.

7.3 Specific end uses

no data available

Section 8: Exposure Controls/Personal Protection

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Erythulose	none listed	none listed	none listed

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9: Physical and Chemical Properties
9.1 Information on basic physical and chemical properties

a) Appearance	Form: clear, viscous liquid Colour: light yellow
b) Odour	Almost odorless
c) Odour Threshold	no data available
d) pH	2.0 – 5.0 (in 50 % water)
e) Melting point/freezing point	< -80°C (< -112 °F), no defined point
f) Initial boiling point and boiling range	>180°C (356°F), exothermic decompose
g) Flash point	250 °F 121 °C Method: closed cup
h) Evaporation rate	no data available
i) Flammability (solid, gas)	Not a highly flammable liquid
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	1243 Pa (at 20 - 25°C)
l) Vapour density	no data available
m) Relative density	1.391 g/cm ³
n) Water solubility	soluble
o) Partition coefficient: noctanol/water	Log Pow = -1.822
p) Autoignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available

	t) Oxidizing properties	no data available
9.2	Other safety information	no data available
Section 10: Stability and Reactivity		
10.1	Reactivity	no data available
10.2	Chemical stability	no data available
10.3	Possibility of hazardous reactions	no data available
10.4	Conditions to avoid	no data available
10.5	Incompatible materials	Strong oxidizing agents
10.6	Hazardous decomposition products	Other decomposition products - no data available
Section 11: Toxicological Information		
11.1	Information on toxicological effects	
	Acute oral toxicity	
	LD50 rat	Dose: >2000 mg/kg for 16% Erythrose
	NOEL (Rat Oral)	
		1000 mg/kg bw/day
	Skin corrosion/irritation	
		no data available
	Serious eye damage/eye irritation	
		no data available
	Respiratory or skin sensitization	
		no data available
	Germ cell mutagenicity	
		no data available
	Carcinogenicity	
	IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
	ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
	NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
	OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
	Reproductive toxicity	

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: Not available

Section 12: Ecological Information

12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates.

Not toxic to daphnia

Toxicity to algae

Not toxic to freshwater algae

12.2 Persistence and degradability

Readily biodegradable.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Substance does not meet the criteria for PBT or VPvB according to Regulation (EC) No 1907/2006, Annex, XIII.

12.6 Other adverse effects

No data available

Section 13: Disposal Considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging		
Dispose of as unused product.		
Section 14: Transport Information		
14.1	UN number ADR/RID: -	IMDG: - IATA: -
14.2	UN proper shipping name ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods	
14.3	Transport hazard class(es) ADR/RID: -	IMDG: - IATA: -
14.4	Packaging group ADR/RID: -	IMDG: - IATA: -
14.5	Environmental hazards ADR/RID: no	IMDG Marine pollutant: no IATA: no
14.6	Special precautions for user no data available	
Section 15: Regulatory Information		
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.		
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture <i>No data available</i>	
15.2	Chemical Safety Assessment no data available	
Section 16: Other Information		
Other Special Considerations: Not available.		
Disclaimer <i>The information above is based on our present knowledge. 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. Users should make their own investigations to determine the suitability of the information for their particular purposes.</i>		
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