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1. ID	ENTIFICATION		
1.1	Product Name	:	Liquid Gluconate, 70 wt% solution.
1.2	CAS NO.	:	527-07-1, 526-95-4, 7732-18-5
	EC#		208-407-7.208-401-4, 231-791-2
1.3	Details of Supplier (INDIA)	:	JIAAN BIOTECH , Plot 282-283, Pithampur Industrial Area, Sector 3,MP
1.4	Contact Number	:	+91-8349999795
1.5	Email	:	info@jiaanbiotech.com
1.6	Emergency Telephone Nos	: W	orld directory of poisons centers
	: http://www.who.int/gho/phe	c/cher	mical_safety/poisons_centres_text/en/
1.7	Relevant Identified Uses of the	Subs	stance/Mixture and Uses Advised Against:
	Chelating agent in foods, dressi	ngs, e	electroplating, concrete mixtures

2.0 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

The product has not been classified as dangerous according to GHS.

2.2 Health: No Classification

2.3 Physical: No Classification

2.4 Label elements: Not applicable

2.5 Other hazards: No data available.

3.0 Composition/Information on Ingredients

3.1 Mixture:

Chemical name	Concentration	CAS-No.
Sodium gluconate	30 %	527-07-1
Gluconic Acid	40 %	526-95-4

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Water 30% 7732-18-5

2-octyl-2H-isothiazol-3-one <0.005% 26530-20-1

4.0 FIRST AID MEASURES

4.1 Description of first aid measures:

Inhalation: Under normal conditions of intended use, this material is not expected to be an inhalation hazard. **Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance.

Skin contact: Wash with soap and water.

Ingestion: Get medical attention if symptoms occur.

- 4.2 Most important symptoms and effects, both acute and delayed: No data available.
- 4.3 Indication of any immediate medical attention and special treatment needed:

5.0 Fire and Explosion Data

5.1 Extinguishing media:

Suitable extinguishing media: Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture: Fire or excessive heat may produce hazardous decomposition products. See Section 10.

5.3 Advice for firefighters:

Special Fire Fighting Procedures: Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6.0 Accident Release Measures

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6.1 Personal precautions, protective equipment and emergency procedures: Caution: Contaminated surfaces may be slippery. See Section 8 of the SDS for Personal Protective Equipment.

6.2 Environmental precautions: No data available.

6.3 Methods and material for containment and cleaning up: Absorb spillage with suitable absorbent material. Collect and dispose of spillage as indicated in section 13 of the SDS. Flush area with water.

7.0 Handling and Storage

- **7.1 Precautions for safe handling:** See Section 8 of the SDS for Personal Protective Equipment.
- **7.2 Conditions for safe storage, including any incompatibilities:** Store in tightly closed original container at a temperature above 10-15°C.

8.0 Exposure Controls/ Personal Protection

8.1 Control parameters:

Occupational exposure limits: This product does not contain any components >1% with specific occupational exposure limits.

- **8.2** Appropriate engineering controls: No data available.
- 8.3 Individual protection measures, such as personal protective equipment:

Eye/face protection: If risk of splashing, wear safety goggles or face shield. (EN 166)

Skin protection:

Hand Protection: No specific precautions.

Other: Wear suitable protective clothing.

Respiratory Protection: No specific precautions.

Hygiene measures: Handle the product in accordance with the good hygiene practices and safety instructions.

9.0 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

Physical State: Liquid

Form: Aqueous Solution

Color: Clear yellow to Brown

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Odorless

pH: 3 - 3.5

Product as it is Freezing point: No data available.

Boiling Point: > 100 °C

Flash Point: Not Applicable

Flammability (solid, gas): Not Applicable

Vapor pressure: ~ 23 hPa at 20 °C

Vapor density (air=1): ~ 0.7

Relative density: ~ 1.3

Solubility in Water: Completely Soluble at 20 °C

Viscosity: 32 Cp at 25 $^{\circ}$ C

Freezing Point : < -10 °C

9.2 Other Reference

10.0 Stability and Reactivity Data

- **10.1 Reactivity**: Oxidizing agents.
- **10.2 Chemical stability**: Material is stable under normal conditions.
- **10.3** Possibility of hazardous reactions: No hazardous reactions under ordinary conditions of use and storage. **10.4** Conditions to avoid: Solutions may become hazy, partially precipitate from solution, or gel with time on exposure to low temperature.
- **10.5** Incompatible materials: Strong oxidizing substances.
- 10.6 Hazardous decomposition products: Carbon Dioxide. Carbon Monoxide

11.0 Toxicological Information

Acute toxicity :				
		Type /		
Test / Substance	Species	Result	Exposure	Remarks
OECD 401 Sodium		LD50 - Oral		
gluconate	Rat	>2000mg/kg	14 h	- Literature Reference -

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TITLE: Liquid Gluconate 70 % , MSDS

1	<u> </u>	 	<u> </u>	<u> </u>
		Not		
		classified		
		LD50 -		
		Dermal		
		>2000mg/kg		
OECD 402 Similar substance	Rat	Not classified	24 h	- Literature Reference -
Skin irritation. :	Nat	Classified	24 11	- Literature Reference -
	C	Descrip	F	Barranda
Test / Substance	Species	Result	Exposure	Remarks
OECD 404 Similar substance	Rabbit	Not Irritating	72 h	- Literature Reference -
Serious eye irritation :				
Test / Substance	Species	Result	Exposure	Remarks
OECD 405 Similar	D. J. J. J.	No. 1 to 12	72.1	1311
substance	Rabbit	Not Irritating	72 h	- Literature Reference -
Sensitization :		_	_	_
Test / Substance	Туре	Species	Result	Remarks
OECD 429 Similar substance	In vivo	Mouse	Non-Sensitizing	- Literature Reference -
Repeated dose toxicity:				
Test / Substance	Species	Result	Exposure	Remarks
		No		
		treatment		
0500 400 61 11		related	00 1 ()	
OECD 408 Similar substance	Rat	effects.	90 day(s)	- Literature Reference -
Mutagenesis:			No data ava	ilable.
Carcinogenicity:			No data ava	ilable.
Reproductive toxicity:				
		Route of		
		Exposure /		
Test / Substance	Species	Exposure	Result	Remarks
			No treatment	
			related effects.	
		Oral 20	NOAEL: 695	
OECD 414 Similar substance	Mouse		1	- Literature Reference -

12.0 Ecological Information

12.1 Acute toxicity:				
Test / Substance	Species	Type/Result	Exposure	Remarks

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		1		1		
OECD 203 Sodium gluconate	Oryzias latipes	LC50 : > 100 mg/l Non toxic	96 h	- Literature Reference -		
OECD 202 Sodium gluconate	Daphnia magna	LC50 : >1000 mg/l Non toxic.	48 h	- Literature Reference -		
OECD 201 Sodium gluconate	Desmodesmus subspicatus	EC0 : <= 100 mg/l	72 h	- Literature Reference -		
OECD 209 Similar substance	Activated Sludge.	EC50 : 649.8 mg/l Non toxic.	3 h	- Literature Reference -		
Chronic Toxicity:		No data available.				
12.2 Persistence and degradability						
Test / Substance	Result		Remarks			
EU.C4-E Sodium	89 % / 28 d the		- Literature			

12.3 Bio accumulative potential:

gluconate

product is readily

biodegradable.

Test / Substance	Log Pow (n- Octanol/Water Partition Coefficient)	Bioconcentration Factor (BCF) / Bioaccumulation	Remarks
Similar substance	-5.99	~ 3 Potential to bioaccumulate is low low.	- Literature Reference -

Reference -

12.4 Mobility in soil:

12.4 Mobility in soil:				
Test / Substance	Medium	Organic Carbon Partition Coefficient (Koc)	Remarks	
Calculated Similar substance	soil	~ 10	This material is	
			readily	
			biodegraded	
			and is not likely	
			to	
			bioconcentrate.	
			- Literature	
			Reference -	
			Similar	
			substance	

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12.5 Other adverse effects:	None known.
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13.0 Disposal Considerations

13.1 Disposal methods:

Product: Dispose of waste in an appropriate authorized treatment facility in accordance with

regulations in force and product characteristics at time of disposal.

Packaging material: Single use packaging. Collect for salvage or disposal.

14.0 Transport Information

This material is not subject to transport regulations

14.1 Special precautions for user: No special precautions.

14.2 Transport in bulk and the IBC Code: Not applicable.

14.3 Environmental hazards: Not regulated

15.0 Other Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: This Safety Data Sheet is in conformity with appendix 4 of the GHS (Globally Harmonized System of Classification and Labelling of Chemicals).

16.0 Other Information

Abbreviations and acronyms used in the MSDS.:

LD50: lethal dose 50%

LC50: lethal concentration

50% EC50: The effective concentration of substance that causes 50% of the maximum response.

CAS: Chemical Abstracts Service (division of the American Chemical Society)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

Disclaimer: The information provided in this Material Safety Data Sheet (MSDS) relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. It is the responsibility of the user to be aware of and to follow the regulations applying to our product for its possession, handling and use. The information given is designed only as a guidance and is not to be considered a

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warranty or quality specification. All information and instructions provided in this MSDS are based on the current state of our knowledge at the latest revision date indicated.