

SPECIFICATION

Product Name: L Glutathione
Chemical Formula: C ₁₀ H ₁₇ N ₃ O ₆ S
CAS Number: 70-18-8
Molecular Weight: 307.33 g/mol
Appearance: White crystals or crystalline powder
Odor: Odorless.

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min/Max)
Identification:			
Ninhydrin test	-	Positive	Positive
Lead acetate test	-	Positive	Positive
Infrared absorption	-	Corresponds	Corresponds
Optical rotation	°C	-16.3°C	-15.5~-17.5°, at 20°C
Melting points	°C	184.1 °C	About 185°C
Assay	%	99.0%	98.0% ~ 101.0%
Ammonium	PPM	NMT 200 PPM	NMT 200 PPM
Arsenic	PPM	NMT 2 PPM	NMT 2 PPM
Cadmium	PPM	NMT 2 PPM	NMT 2 PPM
Lead	PPM	NMT 3 PPM	NMT 3 PPM
Mercury	PPM	NMT 1 PPM	NMT 1 PPM
Chloride	PPM	NMT 200 PPM	NMT 200 PPM
Sulfate	PPM	NMT 300 PPM	NMT 300 PPM
Heavy metals	PPM	NMT 10 PPM	NMT 10 PPM
Iron	PPM	NMT 10 PPM	NMT 10 PPM

Residue in ignition	%	0.02%	NMT 0.1%
Organic impurities	%	Corresponds	Individual impurity: Not more than 1.5% for the impurity with the relative retention time of about 4. Total impurities: Not more than 2.0%
Clarity and colour of solution	-	Corresponds	Clear and colourless
Loss on drying	%	0.2%	NMT 0.5%
Microbiological Analysis			
Total Plate count	cfu/g	Corresponds	NMT 1000cfu/g
Yeast and Mold	cfu/g	Corresponds	NMT 100cfu/g
S.aureus	g	Corresponds	Negative/10g
E.coli	g	Corresponds	Negative/10g
Salmonella	g	Corresponds	Negative/10g
Conclusion	Corresponds		

Physical Properties

- Solubility: Freely soluble in water. Slightly soluble in ethanol. Slightly soluble in methanol. Practically insoluble in acetone. Insoluble in ether.

Shelf Life & Storage

- Shelf Life: 3 years from date of manufacture under recommended storage.
- Storage Conditions: Store in a tightly closed, light-resistant container in a cool, dry, and well-ventilated place, protected from moisture, heat, and direct sunlight. Keep the container tightly sealed when not in use to minimize exposure to air and prevent oxidation.

Applications

- Use: Widely used as an antioxidant, nutraceutical ingredient, and cellular health supplement in pharmaceutical, nutraceutical, food, beverage, and cosmetic products. It helps protect cells from oxidative stress and supports overall wellness.
- Dosage: Depends on the intended application, formulation, and desired health benefit.

Packaging

- Standard Packing: 25 kg woven PP bags with inner liner and 1 kgs or as per customer requirement.

-Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.

* Specifications are based on the manufacturer's provided specifications.