

**PT. CHEIL JEDANG INDONESIA**

Head Office :  
Menara Jamsostek 21<sup>st</sup> Floor  
Jl. Jend. Gatot Subroto Kav. 38  
Jakarta 12710 - Indonesia  
Tel. : (021) 52995000  
Fax. : (021) 52995192-94

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**MATERIAL SAFETY DATA SHEET**

**L-TRYPTOPHAN**

No. Doc. TEQ-BRS-13-05

**1. Substance / preparation and company name**

*Product* : L-Tryptophan 98% Feed Grade  
*Manufacturer* : PT. Cheil Jedang Indonesia  
Desa Arjosari RT.04, RW.02, Kecamatan Rejoso  
Kabupaten Pasuruan 67181 Jawa Timur - Indonesia  
*Emergency Phone* : +62-343-482333

**2. Composition / information on ingredients**

*Composition* : L – Tryptophan 98 % Feed Grade  
*Chemical Family* : Amino Acid (Essential)  
*Molecular Formula* :  $C_{11}H_{12}N_2O_2$   
*Molecular Weight* : 204.23

**3. Possible hazard**

No extraordinary risks for humans and environment

**4. First aid measures**

*General recommendation* : Avoid contact  
*After inhalation* : Remove individual to fresh air  
*After skin contact* : Wash area thoroughly with soap and water  
*After eye contact* : Wash eye with water for 15 minutes  
*After swallowing* : Drink large amounts of water

**5. Fire fighting measures**

*Flash point* : None  
*Auto ignition Temperature* : N/A  
*Flammable limit in air* : None Flammable  
*Extinguishing Media* : Water  
*Special Fire Fighting Procedure* : Should wear protective clothing and respiratory protection  
*Unusual Fire and Explosion Hazard*: Not a fire hazard

**6. Accidental release measures**

*Method of cleaning up* : Wash area with water . avoid high pressure rinsing

**7. Handling & storage**

*Handling* : Recommended to wear glove and face mask if excessive handling is necessary

<i>Storage</i>	: Recommended to be stored in clean and dry condition, under ambient temperature, sheltered from sunlight and avoid from harmful substance
<i>Work place</i>	: Keep to be clean.

## 8. Exposure control and personal protection

<i>Precautionary measures</i>	: Give adequate ventilation to the premises where the product is stored and/or handled.
<i>Respiratory protection</i>	: Not needed for normal use.
<i>Protection of hands</i>	: Not needed for normal use.
<i>Eye protection</i>	: Not needed for normal use.
<i>Protection for skin</i>	: No special precaution must be adopted for normal use.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<i>Bulk Density</i>	: 0.35 ~ 0.50 g/ml
<i>Appearance</i>	: White to slightly yellowish-white crystals or crystalline powder
<i>Odor</i>	: Odorless
<i>Solubility in Water</i>	: 1.06 g/ 100 g water (20 °C)
<i>Percent Volatile</i>	: N/A
<i>Evaporation Rate</i>	: N/A

### 9.2 Other Information

<i>MIE Value</i>	: 10 < MIE < 30 mJ (20 °C)
<i>Classification</i>	: Normal Combustibility
<i>Method</i>	: ASTM E2019
<i>Median Particle size</i>	: 74 μm

## 10. Stability and reactivity

<i>Stability</i>	: Stable if stored in dry conditions in sealed or closed containers
<i>Conditions to avoid</i>	: Heating to decomposition
<i>Substances to avoid</i>	: Strong oxidizers
<i>Hazardous reaction</i>	: None

## 11. Toxicology

<i>Eyes</i>	: Very slightly irritant product
<i>Skin</i>	: Not a skin sensitizer

## 12. Ecology

<i>Degradability</i>	: High bio degradable
<i>Bio accumulation</i>	: No
<i>Toxicology</i>	: Not toxic for wild animals and plants

## 13. Eliminations and considerations

*Recover if possible. In so doing, comply with the local and national regulations currently in force*

## 14. Transports information

*Proper delivering name* : L – Tryptophan 98% Feed Grade  
*Proper delivering condition* : Stored in closed and sealed container

*Means of transportation* : Sea : By ship  
Air : By aero plane

*Packaging* : 10 kg and 20 kg net with 3 ply Kraft paper bag and 1 ply PE  
250 kg net with tycoon bag

## 15. Regulatory information

*88/379/EEC (Classification and Labelling):*  
*The preparation should not be considered as dangerous accordingly to dir. 88/379/EEC.*

*Where applicable, refer to the following regulatory provisions:*  
*Directive 82/501/EEC (Activities linked to risks of serious accidents) and subsequent amendments*

## 16. Other information

*The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended. This MSDS cancels and replaces any preceding release.*