



呼伦贝尔东北阜丰生物科技有限公司

HULUNBEIER NORTHEAST FUFENG BIOTECHNOLOGIES CO., LTD
KAICHUANG STREET,ZHALANTUN,LINGDONG INDUSTRIAL DEVELOPMENT
AREA,HULUNBEIER CITY,INNER MONGOLIA,CHINA

Material Safety Data Sheet

物料安全数据表

Name/名称 HULUNBEIER NORTHEAST FUFENG
BIOTECHNOLOGIES CO.,LTD
呼伦贝尔东北阜丰生物科技有限公司

Address/地址 KaiChuang Street,Zhalantun,Lingdong
Industrial Development Area,Hulunbeier
City,Inner Mongolia
开创路, 扎兰屯岭东工业开发区,呼伦贝尔市, 内蒙古

Tel/电话 0086-470-3265511

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING 物质/公司/承诺识别

Product information 产品信息

Trade name/产品名 : L-THREONINE 98.5% GRANULAR L-苏氨酸 98% 颗粒型

Use of the Substance /应用领域 : Feed Additive 饲料添加剂

2. COMPOSITION/INFORMATION ON INGREDIENTS 成分信息

Chemical Name 化工名: L-Threonine L-苏氨酸

Formula 化学式 : C₄ H₉ N O₃ CAS-No. CAS 编码 : 72-19-5

Other information 其他信息 :

This material is classified as not hazardous under OSHA regulations.

根据 OSHA 的规定, 这种材料被归类为无害材料

This product is intended for FDA use only.

本产品仅供 FDA 使用

3. HAZARDS IDENTIFICATION 危险识别

POTENTIAL HEALTH EFFECTS 潜在健康影响

Eye contact 眼睛接触: No hazard expected in normal use. 正常使用无危险

Skin Contact 皮肤接触 : No hazard expected in normal use. 正常使用无危险

Inhalation 吸入 : No hazard expected in normal use. 正常使用无危险

Ingestion 食入 : No hazard expected in normal use. 正常使用无危险

4. FIRST AID MEASURES 急救措施

Inhalation 吸入:

In case product dust is released : Possible discomfort: cough, sneezing , Take affected persons out into the fresh air. 如果吸入,可能不舒服: 咳嗽, 打喷嚏, 请将患者移到新鲜空气处。

Skin contact 皮肤接触 : No hazards which require special first aid measures. 无需要特殊急救措施的危險

Eye contact 眼睛接触: Possible discomfort is due to foreign substance effect. Rinse thoroughly with plenty of water keeping eyelid open. 可能的不适是由于外来物质引起的。用大量的水彻底冲洗, 保持眼睑张开

In case of persistent discomfort: Consult an ophthalmologist. 如持续不适, 请咨询眼科医生

Ingestion 食入 :

Have the mouth rinsed with water. After absorbing large amounts of substance Consult a physician. Notes to physician .after absorbing large amounts of substance: Acceleration of gastrointestinal passage.用清水漱口。在吸收大量物质后要咨询医生。注意:吸入大量物质后, 胃肠通道加速

5. FIRE-FIGHTING MEASURES 消防措施

Lower explosion limit dust 粉末爆炸下限 : 60 g/m³ Method 方法 : VDI 3 673

Autoignition temperature 自然温度 400 °C Method 方法: DIN 51 794

for dust whirled up Suitable extinguishing media : water mist foam 对于吹起的粉尘, 适宜的灭火介质: 细水雾泡沫

Extinguishing media which must not be used for safety reasons : quenching powder carbon dioxide (CO₂) 出于安全原因不能使用的灭火介质:二氧化碳灭火粉末(CO₂)

6. ACCIDENTAL RELEASE MEASURES 泄露应急处理

Personal precautions 个人预防措施 :

Wear personal protective equipment. Keep unauthorised persons away. 穿戴个人防护装备。禁止未获授权人士进入。

Environmental precautions : Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil. 环境预防:遵守相关的地方、州、省和联邦法律法规。切勿污染湖泊、溪流、池塘、地下水或土壤。

Methods for cleaning up : Absorb mechanically avoiding production of dust. 清洗方法:采用机械吸附, 避免产生粉尘。

7. HANDLING AND STORAGE 处理和贮存

Handling : Safe handling advice ,Handle in accordance with good industrial hygiene and safety practices. 处理:安全处理建议，按照良好的工业卫生和安全惯例处理

Advice on protection against fire and explosion 关于防火和防爆的建议：

Storage : Requirements for storage areas and containers Keep in a dry, cool place. Avoid light effect. Keep container tightly closed and dry. 贮存:贮存区域和容器的要求，应存放在干燥、阴凉的地方。避免光的效果。保持容器密封和干燥。

8. EXPOSURE CONTROLS/PERSONAL PROTECTION 暴露控制/个人防护

Engineering measures 防治措施

Use process enclosures,local exhaust ventilation or other engineering controls to control airborne exposure.使用工艺外壳，局部排气通风或其他工程控制来控制空气暴露

Take precautionary measures against static discharges.Earthing of equipment.采取预防静电排放的措施。设备的接地。

Personal protective equipment 个人防护用品

Respiratory protection 呼吸防护

A respirator protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace

Conditions warrant respirator use. 工作场所必须遵守符合 OSHA 1910.134 和 ANSI Z88.2 或适用的联邦/省要求的呼吸器保护程序条件下，允许使用呼吸器。

Hand protection 手保护

Glove material:Natural rubber,for example,cama clean 708 手套材质:天然橡胶，例如 cama clean 708

Material thickness 手套厚度:0.5mm

Break through time 8 h 耐久性超 8 小时

Method 方法: DIN EN 374

Eye protection 眼睛保护

Safety glasses 安全眼镜

Skin and body protection 皮肤及身体保护

No special protective equipment required. 没有特殊保护设备需求。

Hygiene measures 卫生措施

Wash face and/or hands before break and end of work.Cleanse and apply cream to skin after work.在休息和下班前洗脸和/或洗手。工作后清洁皮肤并涂抹面霜。

Protective measures 防护措施

Handle in accordance with good industrial hygiene and safety practices.按照良好的工业卫生和安全操作规程操作。

If there is the possibility of skin/eye contact,the indicated hand/eye/body protection should be used.如果有与皮肤/眼睛接触的可能性，应使用指示的手/眼/身体保护措施。

9.Physical and chemical properties 物理及化学性能

Appearance 外观

Form 形态: crystalline 晶体

Color 颜色: white until light grey 白色至浅灰色

Odor 气味: almost odourless distinct 几乎无臭

Safety data 安全数据

PH:5-6 (50 g/l) (20°C)water 水温

Melting point/range 熔点: 253-257°C decompositon 分解

Boiling point/range 沸点:not applicable 不适用

Sublimation point 升华点: 200°C

Autoignition temperature 自燃温度:400°C

Glow temperature 发光温度: >400°C

Autoinflammability 可燃问题: 156°C

Explosiveness 爆炸性:The product is susceptible to dust explosion.本产品易发生粉尘爆炸

Lower explosion limit 爆炸下限: dust 粉尘:60 g/m³

Method 方法:VID 3 673

Minimum ignition energy 最小点火能力:60-110 mj (25°C)

Method 方法:VID 2263

Normal combustibility 正常燃烧

Maximum absolute explosive 最大绝对爆炸性: 9.6 bar (with 1000g/m³)

Vapor pressure 气压: Not applicable 不适用

Density 密度: Not applicable 不适用

Bulk density 体积密度: 585-715 kg/m³

Water solubility 水溶性:90 g/l (20°C)

Method 方法:EEC method 92/69/EEC, A6

Partition coefficient(n-octanol/water)分配系数(正辛醇/水): log pow 对数形式:-2.94

Burning number: BZ 5 -Burns out with flames or shower of sparks.燃烧数:bz5 -燃烧后产生火焰或火花

Method: Combustibility test in accordance with VDI 2263 方法:根据 VDI 2263 进行可燃性试验

10. STABILITY AND REACTIVITY 稳定性和反应性

Hazardous decomposition products 有害分解产物 : Hazardous decomposition products not known
decomposition products when exposed to heat flammable smouldering gases Thermal decomposition 危
险分解产物未知分解产物暴露于高温下, 可燃性闷燃气体热分解: 253 °C TG (thermal gravimetric
analysis) 253 °C TG(热重量分析)

Hazardous reactions : Avoid dust formation. Stable at room temperature. 危险反应:避免灰尘形成。室温
下稳定。

11. TOXICOLOGICAL INFORMATION 毒性资料

Product Acute oral toxicity LD50 Rat LD50 大鼠急性口服毒性 : > 2150 mg/kg

Method 方法: OECD Test Guideline 401 经合组织测试指南 401

Product Acute inhalation toxicity LC0 Rat(male/female) 急性吸入毒性 LC0 大鼠(雄性/雌性): > 5.15 mg/l /
4 h

Method 方法: OECD Test Guideline 403 经合组织测试指南 403

limit test (maximum concentration attainable in experiments) - No deaths occurred. 极限试验(实验中可达
到的最大浓度)-无死亡发生

Product Skin irritation 产品皮肤刺激: Rabbit 兔子 not irritating 无刺激 Method 方法: OECD Test
Guideline 404 经合组织测试指南 404

Product Eye irritation 产品眼睛刺激 : Rabbit 兔子 not irritating 无刺激 Method 方法: OECD Test
Guideline 405 经合组织测试指南 405

Product Sensitization 产品敏化: Magnusson & Kligman guinea pig: not sensitizing to the skin Magnusson
& Kligman 豚鼠:对皮肤不敏感

Method : OECD Test Guideline 406 经合组织测试指南 406

12. ECOLOGICAL INFORMATION 生态学资料

Elimination information (persistence and degradability) 消除信息(持久性和可降解性)

Biodegradability 生物降解性: Readily biodegradable 易生物降解. 91 %

Exposure time 暴露时间 : 16 day 天 Method 方法 : literature Ecotoxicity effects Toxicity to daphnia
水蚤的生态毒性:

EC50 static test Daphnia magna EC50 静态测试大水蚤: > 1000 mg/l / 48 h , Method 方法: OECD TG 202

EC50 static test Daphnia magna EC50 静态测试大水蚤: > 1000 mg/l / 24 h , Method 方法: OECD TG 202

Toxicity to algae 对藻类的毒性 : EC50 static test scenedesmus subspicatus:EC50 静态试验场景: > 1000
mg/l / 72 h

Toxicity to bacteria 对细菌的毒性 : EC 80 nitrobacteria 硝化细菌: 119 mg/l / 69 h , Method 方法: literature

Toxicity in terrestrial plants 陆生植物的毒性 : EC 40 Hordeum spec 大麦品种.: ca. 119 mg/l / 144 h ,
Method 方法: literature 文献

13. DISPOSAL CONSIDERATIONS 废弃处理

WASTE DISPOSAL Advice on disposal : Waste must be disposed of in accordance with federal, provincial and local regulations. 关于废物处置的建议:废物必须按照联邦、省和地方法规处置。

14. TRANSPORT INFORMATION 运输信息

Transport/further information : Not classified as dangerous in the meaning of transport regulations. 运输/进一步资料:在运输条例的意义上不属于危险。

Not classified as hazardous for transport in solid form 在固体运输中不属于危险的物品

ERG No 0 EAC 0

IMO NOT DANGEROUS CARGO ACCORDING TO IMO REGULATIONS 根据国际海事组织的规定, 不是危险品

IMDG Code 国际海运危险货物准则 N/A IMDG-Packaging Group IMDG-Packaging 集 N/A
团

Marine Pollutant 海洋污染物 False 错误

Class 登记 N/A

Subsidiary Risks 次要危险性 N/A

Tremcard Number 运输紧急卡号 N/A

15. REGULATORY INFORMATION 法规信息

US Federal Regulations 美国联邦法规

OSHA 职业安全与卫生条例 :

If listed below, chemical specific standards apply to the product or components : None listed 如下列所列, 化学品专用标准适用于产品或成分:未列明

Clean Air Act Section(112) 清洁空气法规 (112) 章节

If listed below, components present at or above the de minimus level are hazardous air pollutants : None listed 如果在下面列出, 存在于最低限度或以上的成分是有毒的空气污染物:没有列出

CERCLA Reportable Quantities 环境保护赔偿责任法可报告的数量

If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component : None listed 如果以下列出, 一个报告数量(RQ)适用于产品基于指定成分的百分比:没有列

出

SARA Title III Section 311/312 Hazard Categories 第三章第 311/312 节危险类别

The product meets the criteria only for the listed hazard classes : No SARA Hazards 该产品仅满足列出的危害类别的标准:无 SARA 危害

SARA Title III Section 313 Reportable Substances SARA Title III 第 313 节可报告的物质

If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 : None listed 如列出如下, 组成部分应遵守 1986 年《超级基金修正案和重新授权法案》第三编第 313 节和《联邦法规》第 40 部第 372 部分的报告要求:未列出

Toxic Substances Control Act (TSCA) 有毒物质控制法

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA : 非专利物质如列于下, 则须根据《有毒物质管制条例》第 12 (b)条发出出口通知书:

None listed 未列于下

State Regulations 州规范

California Proposition 65 加州 65 号提案

A warning under the California Drinking Water Act is required only if listed below : None listed 根据加州饮用水法案, 只有在下列情况下才需要发出警告: 未列于下

16. OTHER INFORMATION 其他信息

HMIS Ratings 有毒物质身份识别系统等级

Health 健康: 0

Flammability 可燃性 : 1

Physical Hazard 物质危害: 0

Further information 更多信息

The product does not have narcotic, noxious, irritating and other characters to cause extreme annoyance or discomfort to crewmembers and passengers, so it does not belong to miscellaneous dangerous goods. 本产品不具有麻醉、有毒、刺激性等特点, 不会对船员和乘客造成极大的烦恼或不适, 不属于杂项危险品。

DISCLAIMER 免责声明:

The information (including data and statements) in this Material Safety Data Sheet (MSDS) is based on experimental data from Hulunbeier Northeast Fufeng Biotechnologies Co., Ltd., and believed to be true and accurate as of the date issued.

But all recommendations or suggestions are made without guarantee, since the conditions and methods of using the product and information referred to herein beyond the control of us. It is our policy, to assist our customers and to help solve particular problems, which may arise in applying our products.

本材料安全数据表(MSDS)中的信息(包括数据和声明)基于呼伦贝尔东北阜丰生物技术有
限公司的实验数据，并被认为是真实和准确的。

但由于我们无法控制使用本协议产品和信息的条件和方法，所以所有的建议或建议都是不
保证的。这是我们的政策，帮助我们的客户和帮助解决特殊问题，可能出现在使用我们的
产品。

Issued date 签发时间:JUN.01,2015

*****END OF MSDS*****