

MATERIAL SAFETY DATA SHEET

Revision Date : 2016-01-27

1. IDENTIFICATION OF THE SUBSTANCE/TREPARATION AND THE COMPANY/UNDERTAKING

| Product name: | Nattokinase |
|---------------|--------------------|
| Supplier: | KONO Chem Co., LTD |
| | No 11 Daqing Road |
| | Xi'an |
| | China |
| | |

Tel:

+86-29-84385017

2.COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS Number | Weight% | ACGIH Exposure Limits: | OSHA Exposure Limits: |
|-------------|-------------|---------|------------------------|-----------------------|
| Nattokinase | 133876-92-3 | 99.0% | None | None |

3.HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: May cause skin irritation and/or dermatitis

| Principle routes of exposure: | Skin |
|-------------------------------|---|
| Inhalation: | May cause irritation of respiratory tract |
| Ingestion: | May be harmful if swallowed |
| Skin contact: | May cause allergic skin reaction |
| Eye contact: | Avoid contact with eyes |

Statements of hazard MAY CAUSE ALLERGIC SKIN REACTION.

Statements of Spill of Leak Label Eliminate all ignition sources. Absorb and/or contain spill with inert materials (e.g., sand, vermiculite). Then place in appropriate container. For large spills, use water spray to disperse vapors, flush spill area. Prevent runoff from entering waterways or sewers.



4. FIRST AID MEASURES

| General advice: | In the case of accident or if you fell unwell, seek medical |
|--|---|
| | advice immediately (show the label where possible). |
| | Move to fresh air, call a physician immediately. |
| Inhalation: | Rinse immediately with plenty of water and seek medical |
| | advice |
| | Do not induce vomiting without medical advice. |
| Skin contact: | In the case of contact with eyes, rinse immediately with |
| Ingestion: | plenty of water and seek medical advice. |
| Eye contact: | No information available |
| Protection of first – aiders: | |
| Medical conditions aggravated by exposure: | None known |

5.FIRE-FIGHTING MEASURES

| Suitable extinguishing media: Specific hazards: Special protective equipment for firefighters: | Use dry chemical, CO2, water spray or "alcohol" foam Burning produces irritant fumes. |
|--|---|
| Flash point: | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear |
| Autoignition temperature: NFPA rating | Not determined |
| NFPA Health: NFPA Flammability: NFPA Reactivity: | 1 1 0 |

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Environmental precautions: Methods for cleaning up: Use personal protective equipment. Prevent product from entering drains.

Sweep up and shovel into suitable containers for disposal

7. HANDLING AND STORAGE

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Storage:

Room temperature Handling:

Safe handling advice: Incompatible products: Use only in area provided with appropriate exhaust ventilation.

Wear personal protective equipment. Oxidising and spontaneously flammable products

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures:Ensure adequate ventilation.Respiratory protection:Breathing apparatus only if aerosol or dust is formed.Skin and body protection:Usual safety precautions while handling the product will
provide adequate protection against this potential effect.
Safety glasses with side-shieldsEye protection:PVC or other plastic material glovesHand protection:Handle in accordance with good industrial hygiene and
safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Melting point/range: | No Data available at this time. |
|---------------------------|---------------------------------|
| Boiling point/range: | No Data available at this time. |
| Density: | No data available |
| Vapor pressure: | No data available |
| Evaporation rate: | No data available |
| Vapor density: | No data available |
| Solubility (in water): | No data available |
| Flash point: | Not determined |
| Autoignition temperature: | Not determined |

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Polymerization: None under normal processing.

Hazardous decomposition products: Thermal decomposition can lead to release of irritating gases and vapours such as carbon oxides.

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Materials to avoid: Strong oxidising agents.

Conditions to avoid: Exposure to air or moisture over prolonged periods.

11. TOXICOLOGICAL INFORMATION

Product information Acute toxicity

| Components | RTECS Number: | Selected LD50s and LC50s |
|-------------------|---------------|--|
| Nattokinase | Not Available | Not Determined |
| Chronic toxicity: | | e may cause nausea and vomiting, causes unconsciousness. |

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

No data is available on the product itself.

May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting,

Local effects:

Specific effects:

Primary irritation: Carcingenic effects: Mutagenic effects: Reproductive toxicity:

12. ECOLOGICAL INFORMATION

headache.

| Mobility: | No data available |
|----------------------|--|
| Bioaccumulation: | No data available |
| Ecotoxicity effects: | No data available |
| Aquatic toxicity: | May cause long-term adverse effects in the aquatic |
| | environment. |

| Components | U.S. DOT –Appendix B – Marine Pollutants | U.S. DOT –Appendix B – Severe Marine Pollutants | United Kingdom – The red List: |
|-------------|---|--|-----------------------------------|
| Nattokinase | Not Listed | Not Listed | Not Listed |
| | 1 | | |
| Components | Germany VCI (WGK) | World Health Organization | Ecotoxicity – Fish Species |
| | | (WHO) – Drinking Water | Data |

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| Nattokinase | Not Listed | Not Listed | Not Listed |
|-------------|--|--|---|
| Componente | Ecotoxicity – Freshwater | Ecotoxicity – Microtox | Factoriaity Water Flag |
| Components | Ecotoxicity – Freshwater Algae Data | Ecotoxicity – Microtox Data | Ecotoxicity – Water Flea Data |
| Nattokinase | Not Listed | Not Listed | Not Listed |
| Componente | EPA – ATSDR Priority List | EPA – HPV Challenge | California Briarity Taxia |
| Components | EPA-AISDR Phoniy List | EPA – HPV Challenge Program Chemical List | California – Priority Toxic Pollutants |
| Nattokinase | Not Listed | Not Listed | Not Listed |

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products:

Waste disposal must be in accordance with appropriate Federal, State and local regulations. This product, if unaltered by use, may be disposed of treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

Contaminated packaging:

Do not re-use empty containers.

14. TRANSPORT INFFORMATION

UN/Id No:

Not regulated

Not Regulated

Non - controlled

DOT

Proper shipping name:

TGD(Canada)

WHMIS hazard class:

IMDG/IMO

IMDG – Hazard Classifications

Not Applicable

| Components | U.S. DOT – Appendix A Table 1 – Reportable Quantities | |
|-------------|---|--|
| Nattokinase | Not Listed | |
| Natiokinase | | |

| Components | U.S. DOT – Appendix B – Marine Pollutants | U.S. DOT –Appendix B – Severe Marine |
|------------|---|--------------------------------------|
| | 4 | |

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| Nattokinase | Not Listed |
|-------------|------------|
| | |

Pollutants

Not Listed

IMO – labels:

15. REGULATORY INFOTMATION

International Inventories

| Components | Inventory – United States TSCA – Sect.8(b) | Canada DSL Inventory List - |
|-------------|--|-----------------------------|
| Nattokinase | Not Listed | Not Listed |

U.S. regulations:

| Components | California proposition | Massachusetts | New Jersey Right to | Pennsylvania |
|-------------|------------------------|---------------------|---------------------|---------------|
| | 65 - | Right to Know List: | Know List: | Right to Know |
| | | | | List: |
| Nattokinase | NA | Not Listed | Not listed | Not listed |

| Components | Florida su | bstance Rho | ode Island Right | Illinois – Toxic | Air | Connecticut – |
|-------------|------------|-------------|------------------|------------------|-----|---------------|
| | List: | to P | Know List: | Contaminants | | Hazardous Air |
| Nattokinase | Not Listed | Not | Listed | Not listed | | Not listed |

| Components | SSARA | 313 | CERCLA/SARA | - | NTP: | IARC: |
|-------------|-----------------|-----|---------------|-----|------------|------------|
| | Emission | | Section | 302 | | |
| | reporting/Toxic | | Extremely Haz | | | |
| | Release | of | | | | |
| | Chemicals | | | | | |
| Nattokinase | | | Not Listed | | Not listed | Not listed |

16. OTHER INFORMATION

Prepared by: Health & Safety

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End of safety data sheet