

SDS DL0261 Amylase Date of Issue/re-issue: **19.03.2018**

User declaration:- I have read and understood this Safety Data Sheet

Name:- _____ Signature _____ Date _____

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1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name

ECP Limited

Address: 39 Woodside Ave, Northcote, Auckland , New Zealand

Emergency Tel: 0800 243 622 or0800 CHE M CA LL	Tel +64 9 480 4386	FAX +64 9 480 4385
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Product	Amylase				Code	DL0261
CAS#	HSNO#	UN #	DG Class/es	Packing group #	Tracking?	Handlers Certificate?
9001-19-8	Nil	Nil	Nil	Nil	No	no

Recommended use: Laboratory Investigations

2. HAZARDS IDENTIFICATION

2.1 GHS Classification Acute toxicity, Oral (Category D) Respiratory sensitization (Category A)

2.2 GHS Label elements, including precautionary statements



Pictogram

Signal word **Danger**

Hazard statement(s) H302 Harmful if swallowed. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. Precautionary statement(s) Prevention P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P285 In case of inadequate ventilation wear respiratory protection. Response P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P330 Rinse mouth. P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician. Disposal P501 Dispose of contents/ container to an approved waste disposal plant. 2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Synonyms : 1,4- α -D-Glucan-glucohydrolase Component Concentration α -Amylase from *Aspergillus Oryzae* CAS-No. 9001-19-8

4. FIRST AID MEASURES

4.1 Description of first aid measures General advice Consult a physician. Show this safety data sheet to the doctor in attendance. If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. In case of skin contact Wash off with soap and plenty of water. Consult a physician. In case of eye contact Flush eyes with water as a precaution. If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. 4.2 Most important symptoms and effects, both acute and delayed To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. 4.3 Indication of any immediate medical attention and special treatment needed no data available

5. FIREFIGHTING MEASURES 5.1 Extinguishing media Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. 5.2 Special hazards arising from the substance or mixture Nature of decomposition products not known. 5.3 Advice for firefighters Wear self contained breathing apparatus for fire fighting if necessary. 5.4 Further information no data available

6. ACCIDENTAL RELEASE MEASURES 6.1 Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. 6.2 Environmental precautions Do not let product enter drains. 6.3 Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. 7.2 Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C hygroscopic Store under inert gas. 7.3 Specific end uses no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters Occupational Exposure Limits We are not aware of any national exposure limit. 8.2 Exposure controls Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Personal protective equipment Eye/face protection Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government.

9. PHYSICAL AND CHEMICAL PROPERTIES 9.1 Information on basic physical and chemical properties a) Appearance Form: powder Colour: beige b) Odour no data available c) Odour Threshold no data available d) pH no data available e) Melting point/freezing point no data available f) Initial boiling point and boiling range no data available g) Flash point no data available h) Evaporation rate no data available i) Flammability (solid, gas) no data available j) Upper/lower flammability or explosive limits no data available k) Vapour pressure no data available l) Vapour density no data available m) Relative density no data available n) Water solubility no data available o) Partition coefficient: noctanol/water no data available p) Autoignition temperature no data available q) Decomposition temperature no data available r) Viscosity no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity no data available
10.2 Chemical stability no data available

- 10.3 Possibility of hazardous reactions no data available
 10.4 Conditions to avoid no data available
 10.5 Incompatible materials Strong oxidizing agents
 10.6 Hazardous decomposition products Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION 11.1 Information on toxicological effects Acute toxicity LD50 Oral - rat - 2,000 mg/kg Skin corrosion/irritation no data available Serious eye damage/eye irritation no data available Respiratory or skin sensitization May cause allergic respiratory reaction. Germ cell mutagenicity no data available Carcinogenicity IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Reproductive toxicity no data available Specific target organ toxicity - single exposure no data available Specific target organ toxicity - repeated exposure no data available Aspiration hazard no data available Potential health effects Inhalation May be harmful if inhaled. May cause respiratory tract irritation. Ingestion Harmful if swallowed. Skin May be harmful if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation. Signs and Symptoms of Exposure To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
 Additional Information RTECS: Not available

12. ECOLOGICAL INFORMATION 12.1 Toxicity Toxicity to fish LC50 - other fish - 100 mg/l Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia magna (Water flea) - 100 mg/l 12.2 Persistence and degradability no data available 12.3 Bioaccumulative potential no data available 12.4 Mobility in soil no data available 12.5 Results of PBT and vPvB assessment no data available 12.6 Other adverse effects no data available

13. DISPOSAL CONSIDERATIONS 13.1 Waste treatment methods Product Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contaminated packaging Dispose of as unused product.

14 Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	ADR/RID	IMDG:-	IATA-DGR:-
14.2	UN Proper Shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3	Transport Hazard Class	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.4	Packaging group	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.5	Environmental Hazards	Not dangerous goods	Not marine pollutant	Not dangerous goods

14.6 Special precautions for user – no data available

15. REGULATORY INFORMATION 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture National regulatory information HSNO Approval Code: not required HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006 Tracking Required: not required, not required Approved Handler Cert.: not required, not required Notification status AICS: On the inventory, or in compliance with the inventory DSL: This product contains the following components that are not on the Canadian DSL nor NDSL lists. - α -Amylase from Aspergillus Oryzae ENCS: Not in compliance with the inventory - α -Amylase from Aspergillus Oryzae IECSC: On the inventory, or in compliance with the inventory ISHL: Not in compliance with the inventory

- α -Amylase from Aspergillus Oryzae KECI: Not in compliance with the inventory - α -Amylase from Aspergillus Oryzae NZIoC: Not in compliance with the inventory - α -Amylase from Aspergillus Oryzae PICCS: On the inventory, or in compliance with the inventory

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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