



Material Safety Data Sheet

Issue/Revision Date: 16th March, 2010

1. Identification of the substance/preparation and of the company/undertaking

Proper Shipping Name	Arginine/Urea/Ammonia assay kit
Product code	K-LARGE
Other Names	None
Company Name	Megazyme International Ireland Ltd.
Address	Bray Business Park, Southern Cross Road, Bray, Co. Wicklow, Ireland.
Contact point	Dr. Barry McCleary, PhD, DScAgr
Emergency Telephone	+353-1-2861220
Telephone	+353-1-2861220
Fax	+353-1-2861264

The quantities of the individual reagents supplied in this kit present no specific hazards, alone or in combination, when used and stored as directed. For more information refer to the K-LARGE booklet.

2. Composition/information on ingredients

This kit contains the following reagents :-

Chemical name	CAS #	EC #	Symbol	R-Phrases	S-Phrases
Buffer containing :-					
TEA	102-71-6	203-049-8	Xi	R36	S26, S39
Imidazole	288-32-4	206-019-2	C	R22, R34	S26, S36/37/39, S45
2-Oxoglutarate*	328-50-7	206-330-3	Xi	R37/38, R41	S26, S39
Tablets containing :-					
NADPH	220-163-3	-	-	-	-
Stabilised suspension containing :-					
Glutamate dehydrogenase*	9029-12-3	232-848-4	-	-	-
Stabilised suspension containing :-					
Urease*	9002-13-5	232-656-0	Xn	R36/37/38, R42	S22, S24, S26, S36/37
Stabilised suspension containing :-					
Arginase*	9000-96-8	232-570-3	-	-	-
Standard solution containing :-					
Ammonia	7783-20-2	231-984-1	-	-	S24/25, S36/37/39
Powder containing :-					
L-Arginine	74-79-3	200-811-1	-	-	S24/25
*Sodium azide (0.02 % w/v)	26628-22-8	247-852-1	T+, N	R28, R32, R50/53	S28, S45, S60, S61

3. Hazards identification

The quantities of the individual products supplied in this kit present no specific hazards, alone or in combination, when used and stored as directed. However, certain sensitive individuals may develop allergic reactions.

Physical/chemical hazards

Human health hazards

4. First aid

The information in this section is given as general advice.

General information

Seek medical advice in cases of accident or if you feel unwell when using this product. Show the label where possible.

Ingestion

If person is conscious immediately flush mouth with plenty of water. Never give anything by mouth to an unconscious person. Loosen any tight clothing (*i.e.* collar, tie, belt or waistband). Do not induce vomiting without medical advice. Get medical advice.

Eye contact

Remove contact lenses if fitted. Flush eyes with plenty of water for at least 15 minutes. Get medical advice.

Skin contact

Immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Wash clothing and clean shoes before re-use. Get medical advice.

Inhalation

Move to fresh air. If breathing becomes difficult get medical advice.

5. Fire-fighting measures

Flammability

Not determined

Extinguishing Media

Dry chemical powder, water spray, carbon dioxide or foam.

Specific hazards

Burning may produce toxic and irritant fumes (nitrogen oxides, carbon monoxide, carbon dioxide).

Fire Fighting Procedure

Wear breathing apparatus and full protective clothing.

Flash point

Not determined

Autoignition temperature

Not determined

6. Accidental release measures

Personal precautions

Use personal protective equipment.

Spill and leak

Use personal protective equipment. Spillages of should be dealt with immediately. Sweep or mop up (avoid raising dust or aerosol) and place in a suitable container ready for disposal.

Ventilate area and carefully wash any contaminated surfaces.

Wash all contaminated clothing.

Disposal

Waste may be disposed of in approved landfill sites, incineration or other method in accordance with local, state and federal regulations.

7. Handling and storage

Storage

Stable for 5 years when stored in a cool (4°C) dry place.

Handling

Handle according to good hygiene, laboratory and safety practices. Wash hands after use, before eating, drinking or smoking and at the end of the workday.

Use only in areas with adequate ventilation. Keep away from heat and sources of ignition.

Avoid ingesting, breathing dust or aerosol, contact with eyes, skin and clothing.

Avoid prolonged or repeated exposure.

Wear laboratory coats (or other suitable protective clothing), approved safety glasses (with side shields) and gloves.

Incompatible products

NA

8. Exposure controls and personal protection

Engineering measures

Ensure adequate ventilation

Respiratory protection

A protective dust mask (*e.g.* 3M 8810 mask, type N95 [US], type 1 [EN 143] *etc.*) is advisable to avoid breathing particulates when a powdered form of the product is being handled. Use an approved respirator when aerosol, vapour or dust is

	generated.
Eye Protection	Approved safety glasses with side shields
Hand Protection	Gloves (<i>e.g.</i> nitrile)
Protective clothing	Laboratory coat or any other protective clothing designed to minimise skin contact.

9. Physical and chemical properties

Appearance	The kit contains four (4) glass vials and two (2) plastic containers
Solubility in water	NA
Melting point	NA
Hazardous decomposition products	Not determined
Odour	NA

10. Stability and reactivity

Stability	Stable under recommended storage conditions.
Conditions to avoid	NA
Solubility in Water	NA
Melting point	NA

11. Toxicological information

To the best of our knowledge, the chemical, physical and toxicological properties of this product have not been fully investigated.

Chronic toxicity
Potential health effects

12. Ecological information

Ecotoxicity effects	No data available.
Bioaccumulation	No data available.
Persistence and degradability	No data available.

13. Disposal considerations

Product	Unused product may be disposed of in approved landfill sites, incineration or other method in accordance with local, state and federal regulations.
Contaminated packaging	Dispose of in the same manner as unused product.

14. Transport information

RID/ADR	Not controlled under ADR (Europe).
IMDG/IMO	Not hazardous for transport by sea.
ICAO/IATA	Not hazardous for transport by air.
DOT (US)	Not classified as dangerous goods.

15. Regulatory information

EU regulations		
	Classification	NA
	Risk phrases	NA
	Safety phrases	NA

16. Other information

Precautions	For laboratory use only. Not for drug, household or other uses.
Disclaimer	The information and recommendations contained herein are to the best of our knowledge

reliable. However, Megazyme International Ireland Ltd. does not guarantee the accuracy or completeness of the information and as such this document should be used as a guide only. In addition, nothing herein is to be construed as a warranty or representation in respect of safety in use, suitability efficiency or otherwise, including freedom from patent infringements. Users should make their own tests for their particular purpose. We cannot accept any liability for any loss, damage or infringement arising from the use of the information or recommendations contained herein.