

SAFETY DATA SHEET



AdvanceBio Amino Acid reagent kit, Part Number 5190-9426

Section 1. Identification

Product identifier	: AdvanceBio Amino Acid reagent kit, Part Number 5190-9426	
Part No. (Chemical Kit)	: 5190-9426	
Part No.	: Sarcosine, Part Number 5062-2478	5062-2478*
	L-Tryptophan, Part Number 5062-2478	5062-2478*
	L-Norvaline, Part Number 5062-2478	5062-2478*
	L-Glutamine, Part Number 5062-2478	5062-2478*
	L-Asparagine, Part Number 5062-2478	5062-2478*
	L-4-Hydroxyproline, Part Number 5062-2478	5062-2478*
	Dithiodipropionic, Part Number 5062-2479	5062-2479
	td 1nmol 10/PK, Part Number 5061-3330	5061-3330
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	5061-3331
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	5061-3332
	AA, std 25pmol 10/PK, Part Number 5061-3333	5061-3333
	AA, std 10pmol 10/PK, Part Number 5061-3334	5061-3334
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	5061-3335
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	5061-3337
	Buffer, Borate 100ml/BT, Part Number 5061-3339	5061-3339

Relevant identified uses of the substance or mixture and uses advised against

Analytical chemistry.

Sarcosine, Part Number 5062-2478	1 x 1 g
L-Tryptophan, Part Number 5062-2478	1 x 1 g
L-Norvaline, Part Number 5062-2478	1 x 1 g
L-Glutamine, Part Number 5062-2478	1 x 1 g
L-Asparagine, Part Number 5062-2478	1 x 1 g
L-4-Hydroxyproline, Part Number 5062-2478	1 x 1 g
Dithiodipropionic, Part Number 5062-2479	1 x 5 g
td 1nmol 10/PK, Part Number 5061-3330	10 x 1 ml
AA, standard 250PMOL 10/PK, Part Number 5061-3331	10 x 1 ml
AA, standard 100PMOL 10/PK, Part Number 5061-3332	10 x 1 ml
AA, std 25pmol 10/PK, Part Number 5061-3333	10 x 1 ml
AA, std 10pmol 10/PK, Part Number 5061-3334	10 x 1 ml
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	6 x 1 ml
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	10 x 1 ml
Buffer, Borate 100ml/BT, Part Number 5061-3339	1 x 100 ml

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
 679 Springvale Road
 Mulgrave
 Victoria 3170, Australia
 1800 802 402

Section 1. Identification

Emergency telephone number (with hours of operation) : CHEMTREC®: (61)-290372994

Note * : 5062-2478 AA supplement, 1g ea N 6 x 1 g
A kit containing: Sarcosine; L-Tryptophan; L-Norvaline; L-Glutamine; L-Asparagine; L-4-Hydroxyproline

Section 2. Hazard(s) identification

Classification of the substance or mixture

Dithiodipropionic, Part Number 5062-2479

H315 SKIN CORROSION/IRRITATION - Category 2
H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
H335 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

td 1nmol 10/PK, Part Number 5061-3330

H290 CORROSIVE TO METALS - Category 1

AA, standard 250PMOL 10/PK, Part Number 5061-3331

H290 CORROSIVE TO METALS - Category 1

AA, standard 100PMOL 10/PK, Part Number 5061-3332

H290 CORROSIVE TO METALS - Category 1

AA, std 25pmol 10/PK, Part Number 5061-3333

H290 CORROSIVE TO METALS - Category 1

AA, std 10pmol 10/PK, Part Number 5061-3334

H290 CORROSIVE TO METALS - Category 1

OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335

H302 ACUTE TOXICITY (oral) - Category 4
H314 SKIN CORROSION/IRRITATION - Category 1A
H318 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
H317 SKIN SENSITISATION - Category 1
H360 REPRODUCTIVE TOXICITY (Fertility) - Category 1B
H360 REPRODUCTIVE TOXICITY (Unborn child) - Category 1B
H371 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 2
H401 ACUTE AQUATIC HAZARD - Category 2
H411 LONG-TERM AQUATIC HAZARD - Category 2

Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337

H225 FLAMMABLE LIQUIDS - Category 2
H302 ACUTE TOXICITY (oral) - Category 4
H312 ACUTE TOXICITY (dermal) - Category 4
H332 ACUTE TOXICITY (inhalation) - Category 4
H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

Buffer, Borate 100ml/BT,

Section 2. Hazard(s) identification**Part Number 5061-3339**

H360

REPRODUCTIVE TOXICITY (Fertility) - Category 1B

H360

REPRODUCTIVE TOXICITY (Unborn child) - Category 1B

GHS label elements**Hazard pictograms**

:

**Signal word**

:

Sarcosine, Part Number 5062-2478	No signal word.
L-Tryptophan, Part Number 5062-2478	No signal word.
L-Norvaline, Part Number 5062-2478	No signal word.
L-Glutamine, Part Number 5062-2478	No signal word.
L-Asparagine, Part Number 5062-2478	No signal word.
L-4-Hydroxyproline, Part Number 5062-2478	No signal word.
Dithiodipropionic, Part Number 5062-2479	WARNING
td 1nmol 10/PK, Part Number 5061-3330	WARNING
AA, standard 250PMOL 10/PK, Part Number 5061-3331	WARNING
AA, standard 100PMOL 10/PK, Part Number 5061-3332	WARNING
AA, std 25pmol 10/PK, Part Number 5061-3333	WARNING
AA, std 10pmol 10/PK, Part Number 5061-3334	WARNING
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	DANGER
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	DANGER
Buffer, Borate 100ml/BT, Part Number 5061-3339	DANGER

Hazard statements

:

Sarcosine, Part Number 5062-2478	No known significant effects or critical hazards.
L-Tryptophan, Part Number 5062-2478	No known significant effects or critical hazards.
L-Norvaline, Part Number 5062-2478	No known significant effects or critical hazards.
L-Glutamine, Part Number 5062-2478	No known significant effects or critical hazards.
L-Asparagine, Part Number 5062-2478	No known significant effects or critical hazards.
L-4-Hydroxyproline, Part Number 5062-2478	No known significant effects or critical hazards.
Dithiodipropionic, Part Number 5062-2479	H319 - Causes serious eye irritation. H315 - Causes skin irritation. H335 - May cause respiratory irritation.
td 1nmol 10/PK, Part Number 5061-3330	H290 - May be corrosive to metals.

Section 2. Hazard(s) identification

AA, standard 250PMOL 10/PK, Part Number 5061-3331	H290 - May be corrosive to metals.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	H290 - May be corrosive to metals.
AA, std 25pmol 10/PK, Part Number 5061-3333	H290 - May be corrosive to metals.
AA, std 10pmol 10/PK, Part Number 5061-3334	H290 - May be corrosive to metals.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction. H360 - May damage fertility or the unborn child. H371 - May cause damage to organs. H411 - Toxic to aquatic life with long lasting effects.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	H225 - Highly flammable liquid and vapour. H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled. H319 - Causes serious eye irritation. H360 - May damage fertility or the unborn child.
Buffer, Borate 100ml/BT, Part Number 5061-3339	

Precautionary statements**Prevention**

: Sarcosine, Part Number 5062-2478	Not applicable.
L-Tryptophan, Part Number 5062-2478	Not applicable.
L-Norvaline, Part Number 5062-2478	Not applicable.
L-Glutamine, Part Number 5062-2478	Not applicable.
L-Asparagine, Part Number 5062-2478	Not applicable.
L-4-Hydroxyproline, Part Number 5062-2478	Not applicable.
Dithiodipropionic, Part Number 5062-2479	P280 - Wear protective gloves. Wear eye or face protection. P271 - Use only outdoors or in a well-ventilated area. P261 - Avoid breathing dust. P264 - Wash hands thoroughly after handling. P234 - Keep only in original container.
td 1nmol 10/PK, Part Number 5061-3330	
AA, standard 250PMOL 10/PK, Part Number 5061-3331	P234 - Keep only in original container.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	P234 - Keep only in original container.
AA, std 25pmol 10/PK, Part Number 5061-3333	P234 - Keep only in original container.
AA, std 10pmol 10/PK, Part Number 5061-3334	P234 - Keep only in original container.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P281 - Use personal protective equipment as required.

Section 2. Hazard(s) identification

		P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P273 - Avoid release to the environment. P260 - Do not breathe vapour. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling. P272 - Contaminated work clothing should not be allowed out of the workplace.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337		P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P233 - Keep container tightly closed. P271 - Use only outdoors or in a well-ventilated area. P261 - Avoid breathing vapour. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling. P201 - Obtain special instructions before use.
Buffer, Borate 100ml/BT, Part Number 5061-3339		P202 - Do not handle until all safety precautions have been read and understood. P281 - Use personal protective equipment as required.
Response	: Sarcosine, Part Number 5062-2478 L-Tryptophan, Part Number 5062-2478 L-Norvaline, Part Number 5062-2478 L-Glutamine, Part Number 5062-2478 L-Asparagine, Part Number 5062-2478 L-4-Hydroxyproline, Part Number 5062-2478 Dithiodipropionic, Part Number 5062-2479	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P302 + P352 + P362 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. P332 + P313 - If skin irritation occurs: Get medical attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention. P390 - Absorb spillage to prevent material damage.
td 1nmol 10/PK, Part Number 5061-3330 AA, standard 250PMOL 10/PK, Part Number 5061-3331 AA, standard 100PMOL		P390 - Absorb spillage to prevent material damage. P390 - Absorb spillage to prevent material damage.

Section 2. Hazard(s) identification

10/PK, Part Number 5061-3332		
AA, std 25pmol 10/PK, Part Number 5061-3333		P390 - Absorb spillage to prevent material damage.
AA, std 10pmol 10/PK, Part Number 5061-3334		P390 - Absorb spillage to prevent material damage.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335		P391 - Collect spillage.
		P309 + P311 - IF exposed or if you feel unwell: Call a POISON CENTER or physician.
		P304 + P340 + P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.
		P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.
		P303 + P361 + P353 + P363 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.
		P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
		P333 + P313 - If skin irritation or rash occurs: Get medical attention.
		P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337		P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
		P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.
		P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
		P302 + P352 + P312 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell.
		P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P337 + P313 - If eye irritation persists: Get medical attention.
		P308 + P313 - IF exposed or concerned: Get medical attention.
		Not applicable.
		Not applicable.
		Not applicable.
		Not applicable.
		Not applicable.
		Not applicable.
		Not applicable.

Storage

Buffer, Borate 100ml/BT, Part Number 5061-3339	
: Sarcosine, Part Number 5062-2478	Not applicable.
L-Tryptophan, Part Number 5062-2478	Not applicable.
L-Norvaline, Part Number 5062-2478	Not applicable.
L-Glutamine, Part Number 5062-2478	Not applicable.
L-Asparagine, Part Number 5062-2478	Not applicable.
L-4-Hydroxyproline, Part	Not applicable.

Section 2. Hazard(s) identification

	Number 5062-2478	
	Dithiodipropionic, Part	P405 - Store locked up.
	Number 5062-2479	
	td 1nmol 10/PK, Part	P406 - Store in corrosive resistant container with a
	Number 5061-3330	resistant inner liner.
	AA, standard 250PMOL	P406 - Store in corrosive resistant container with a
	10/PK, Part Number	resistant inner liner.
	5061-3331	
	AA, standard 100PMOL	P406 - Store in corrosive resistant container with a
	10/PK, Part Number	resistant inner liner.
	5061-3332	
	AA, std 25pmol 10/PK, Part	P406 - Store in corrosive resistant container with a
	Number 5061-3333	resistant inner liner.
	AA, std 10pmol 10/PK, Part	P406 - Store in corrosive resistant container with a
	Number 5061-3334	resistant inner liner.
	OPA reagent, 10 mg/ml, 6	P405 - Store locked up.
	ampoules, Part Number	
	5061-3335	
	Fmoc reagent 10 ampoules	P403 - Store in a well-ventilated place.
	1ml ea for AAA, Part	
	Number 5061-3337	
		P235 - Keep cool.
	Buffer, Borate 100ml/BT,	P405 - Store locked up.
	Part Number 5061-3339	
Disposal	: Sarcosine, Part Number	Not applicable.
	5062-2478	
	L-Tryptophan, Part Number	Not applicable.
	5062-2478	
	L-Norvaline, Part Number	Not applicable.
	5062-2478	
	L-Glutamine, Part Number	Not applicable.
	5062-2478	
	L-Asparagine, Part Number	Not applicable.
	5062-2478	
	L-4-Hydroxyproline, Part	Not applicable.
	Number 5062-2478	
	Dithiodipropionic, Part	P501 - Dispose of contents and container in
	Number 5062-2479	accordance with all local, regional, national and
		international regulations.
	td 1nmol 10/PK, Part	Not applicable.
	Number 5061-3330	
	AA, standard 250PMOL	Not applicable.
	10/PK, Part Number	
	5061-3331	
	AA, standard 100PMOL	Not applicable.
	10/PK, Part Number	
	5061-3332	
	AA, std 25pmol 10/PK, Part	Not applicable.
	Number 5061-3333	
	AA, std 10pmol 10/PK, Part	Not applicable.
	Number 5061-3334	
	OPA reagent, 10 mg/ml, 6	P501 - Dispose of contents and container in
	ampoules, Part Number	accordance with all local, regional, national and
	5061-3335	international regulations.
	Fmoc reagent 10 ampoules	P501 - Dispose of contents and container in
	1ml ea for AAA, Part	accordance with all local, regional, national and
	Number 5061-3337	international regulations.
	Buffer, Borate 100ml/BT,	P501 - Dispose of contents and container in
	Part Number 5061-3339	accordance with all local, regional, national and
		international regulations.

Section 2. Hazard(s) identification

Supplemental label elements	: Sarcosine, Part Number 5062-2478	Not applicable.
	L-Tryptophan, Part Number 5062-2478	Not applicable.
	L-Norvaline, Part Number 5062-2478	Not applicable.
	L-Glutamine, Part Number 5062-2478	Not applicable.
	L-Asparagine, Part Number 5062-2478	Not applicable.
	L-4-Hydroxyproline, Part Number 5062-2478	Not applicable.
	Dithiodipropionic, Part Number 5062-2479	Not applicable.
	td 1nmol 10/PK, Part Number 5061-3330	Not applicable.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not applicable.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not applicable.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not applicable.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not applicable.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not applicable.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not applicable.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Not applicable.
	Other hazards which do not result in classification	: Sarcosine, Part Number 5062-2478
L-Tryptophan, Part Number 5062-2478		May form explosible dust-air mixture if dispersed.
L-Norvaline, Part Number 5062-2478		May form explosible dust-air mixture if dispersed.
L-Glutamine, Part Number 5062-2478		May form explosible dust-air mixture if dispersed.
L-Asparagine, Part Number 5062-2478		May form explosible dust-air mixture if dispersed.
L-4-Hydroxyproline, Part Number 5062-2478		May form explosible dust-air mixture if dispersed.
Dithiodipropionic, Part Number 5062-2479		May form explosible dust-air mixture if dispersed.
td 1nmol 10/PK, Part Number 5061-3330		None known.
AA, standard 250PMOL 10/PK, Part Number 5061-3331		None known.
AA, standard 100PMOL 10/PK, Part Number 5061-3332		None known.
AA, std 25pmol 10/PK, Part Number 5061-3333		None known.
AA, std 10pmol 10/PK, Part Number 5061-3334		None known.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number		Causes digestive tract burns.

Section 2. Hazard(s) identification

5061-3335
 Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 None known.
 Buffer, Borate 100ml/BT, Part Number 5061-3339 None known.

Section 3. Composition and ingredient information

Substance/mixture	:	Sarcosine, Part Number 5062-2478	Substance
		L-Tryptophan, Part Number 5062-2478	Substance
		L-Norvaline, Part Number 5062-2478	Substance
		L-Glutamine, Part Number 5062-2478	Substance
		L-Asparagine, Part Number 5062-2478	Substance
		L-4-Hydroxyproline, Part Number 5062-2478	Substance
		Dithiodipropionic, Part Number 5062-2479	Substance
		td 1nmol 10/PK, Part Number 5061-3330	Mixture
		AA, standard 250PMOL 10/PK, Part Number 5061-3331	Mixture
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	Mixture
		AA, std 25pmol 10/PK, Part Number 5061-3333	Mixture
		AA, std 10pmol 10/PK, Part Number 5061-3334	Mixture
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Mixture
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Mixture
		Buffer, Borate 100ml/BT, Part Number 5061-3339	Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
Sarcosine, Part Number 5062-2478 Sarcosine	100	107-97-1
L-Tryptophan, Part Number 5062-2478 L-Tryptophan	100	73-22-3
L-Norvaline, Part Number 5062-2478 Norvaline	100	6600-40-4
L-Glutamine, Part Number 5062-2478 Levoglutamide	100	56-85-9
L-Asparagine, Part Number 5062-2478 Asparagine	100	70-47-3
L-4-Hydroxyproline, Part Number 5062-2478		

Section 3. Composition and ingredient information

L-4-Hydroxyproline	100	51-35-4
Dithiodipropionic, Part Number 5062-2479 3,3'-dithiobispropionic acid	100	1119-62-6
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide	≤10	1310-58-3
boric acid	≤5	10043-35-3
3-Mercaptopropionic acid	≤3	107-96-0
Methanol	≤3	67-56-1
Phthalaldehyde	<2.5	643-79-8
Potassium thiocyanate	≤3	333-20-0
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	≥90	75-05-8
Buffer, Borate 100ml/BT, Part Number 5061-3339 boric acid	≤1	10043-35-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Sarcosine, Part Number 5062-2478	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	L-Tryptophan, Part Number 5062-2478	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	L-Norvaline, Part Number 5062-2478	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	L-Glutamine, Part Number 5062-2478	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	L-Asparagine, Part Number 5062-2478	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	L-4-Hydroxyproline, Part Number 5062-2478	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Dithiodipropionic, Part Number 5062-2479	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
	td 1nmol 10/PK, Part Number 5061-3330	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue

Section 4. First aid measures

AA, standard 100PMOL
10/PK, Part Number
5061-3332

to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

AA, std 25pmol 10/PK, Part
Number 5061-3333

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

AA, std 10pmol 10/PK, Part
Number 5061-3334

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

OPA reagent, 10 mg/ml, 6
ampoules, Part Number
5061-3335

Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

FMOc reagent 10 ampoules
1ml ea for AAA, Part
Number 5061-3337

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Buffer, Borate 100ml/BT,
Part Number 5061-3339

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation

: Sarcosine, Part Number
5062-2478

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

L-Tryptophan, Part Number
5062-2478

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

L-Norvaline, Part Number
5062-2478

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

L-Glutamine, Part Number
5062-2478

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

L-Asparagine, Part Number
5062-2478

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 4. First aid measures

L-4-Hydroxyproline, Part Number 5062-2478	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Dithiodipropionic, Part Number 5062-2479	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
td 1nmol 10/PK, Part Number 5061-3330	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
AA, std 25pmol 10/PK, Part Number 5061-3333	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such

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AA, std 10pmol 10/PK, Part Number 5061-3334

as a collar, tie, belt or waistband. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335

Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Buffer, Borate 100ml/BT, Part Number 5061-3339

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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Skin contact	: Sarcosine, Part Number 5062-2478	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	L-Tryptophan, Part Number 5062-2478	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	L-Norvaline, Part Number 5062-2478	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	L-Glutamine, Part Number 5062-2478	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	L-Asparagine, Part Number 5062-2478	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	L-4-Hydroxyproline, Part Number 5062-2478	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Dithiodipropionic, Part Number 5062-2479	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	td 1nmol 10/PK, Part Number 5061-3330	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash

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Ingestion

: Sarcosine, Part Number 5062-2478	contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
L-Tryptophan, Part Number 5062-2478	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
L-Norvaline, Part Number 5062-2478	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
L-Glutamine, Part Number 5062-2478	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
L-Asparagine, Part Number 5062-2478	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
L-4-Hydroxyproline, Part Number 5062-2478	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Dithiodipropionic, Part Number 5062-2479	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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td 1nmol 10/PK, Part
Number 5061-3330

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

AA, standard 250PMOL
10/PK, Part Number
5061-3331

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

AA, standard 100PMOL
10/PK, Part Number
5061-3332

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

AA, std 25pmol 10/PK, Part
Number 5061-3333

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie,

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AA, std 10pmol 10/PK, Part Number 5061-3334

belt or waistband.

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Buffer, Borate 100ml/BT, Part Number 5061-3339

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an

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open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

: Sarcosine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
L-Tryptophan, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
L-Norvaline, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
L-Glutamine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
L-Asparagine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
L-4-Hydroxyproline, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
Dithiodipropionic, Part Number 5062-2479	Causes serious eye irritation.
td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Causes serious eye damage.
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Causes serious eye irritation.
Buffer, Borate 100ml/BT, Part Number 5061-3339	No known significant effects or critical hazards.

Inhalation

: Sarcosine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
L-Tryptophan, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
L-Norvaline, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
L-Glutamine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
L-Asparagine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
L-4-Hydroxyproline, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

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	Dithiodipropionic, Part Number 5062-2479	of the nose, throat and lungs. May cause respiratory irritation.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No known significant effects or critical hazards.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Harmful if inhaled.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No known significant effects or critical hazards.
Skin contact	: Sarcosine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Tryptophan, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Norvaline, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Glutamine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Asparagine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-4-Hydroxyproline, Part Number 5062-2478	No known significant effects or critical hazards.
	Dithiodipropionic, Part Number 5062-2479	Causes skin irritation.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Causes severe burns. May cause an allergic skin reaction.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Harmful in contact with skin.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No known significant effects or critical hazards.

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Ingestion	:	Sarcosine, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Tryptophan, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Norvaline, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Glutamine, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Asparagine, Part Number 5062-2478	No known significant effects or critical hazards.
		L-4-Hydroxyproline, Part Number 5062-2478	No known significant effects or critical hazards.
		Dithiodipropionic, Part Number 5062-2479	No known significant effects or critical hazards.
		td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
		AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
		AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
		AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Harmful if swallowed. Corrosive to the digestive tract. Causes burns.
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Harmful if swallowed.
		Buffer, Borate 100ml/BT, Part Number 5061-3339	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	Sarcosine, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
		L-Tryptophan, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
		L-Norvaline, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
		L-Glutamine, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
		L-Asparagine, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
		L-4-Hydroxyproline, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
		Dithiodipropionic, Part Number 5062-2479	Adverse symptoms may include the following: pain or irritation watering

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	td 1nmol 10/PK, Part Number 5061-3330	redness No specific data.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Adverse symptoms may include the following: pain watering redness
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Adverse symptoms may include the following: pain or irritation watering redness
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No specific data.
Inhalation	: Sarcosine, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	L-Tryptophan, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	L-Norvaline, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	L-Glutamine, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	L-Asparagine, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	L-4-Hydroxyproline, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	Dithiodipropionic, Part Number 5062-2479	Adverse symptoms may include the following: respiratory tract irritation coughing
	td 1nmol 10/PK, Part Number 5061-3330	No specific data.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.

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	AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No specific data.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	: Sarcosine, Part Number 5062-2478	No specific data.
	L-Tryptophan, Part Number 5062-2478	No specific data.
	L-Norvaline, Part Number 5062-2478	No specific data.
	L-Glutamine, Part Number 5062-2478	No specific data.
	L-Asparagine, Part Number 5062-2478	No specific data.
	L-4-Hydroxyproline, Part Number 5062-2478	No specific data.
	Dithiodipropionic, Part Number 5062-2479	Adverse symptoms may include the following: irritation redness
	td 1nmol 10/PK, Part Number 5061-3330	No specific data.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Adverse symptoms may include the following: pain or irritation redness blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No specific data.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations

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Ingestion	: Sarcosine, Part Number 5062-2478	No specific data.
	L-Tryptophan, Part Number 5062-2478	No specific data.
	L-Norvaline, Part Number 5062-2478	No specific data.
	L-Glutamine, Part Number 5062-2478	No specific data.
	L-Asparagine, Part Number 5062-2478	No specific data.
	L-4-Hydroxyproline, Part Number 5062-2478	No specific data.
	Dithiodipropionic, Part Number 5062-2479	No specific data.
	td 1nmol 10/PK, Part Number 5061-3330	No specific data.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Adverse symptoms may include the following: stomach pains reduced foetal weight increase in foetal deaths skeletal malformations
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No specific data.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: Sarcosine, Part Number 5062-2478	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	L-Tryptophan, Part Number 5062-2478	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	L-Norvaline, Part Number 5062-2478	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	L-Glutamine, Part Number 5062-2478	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	L-Asparagine, Part Number 5062-2478	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical

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L-4-Hydroxyproline, Part Number 5062-2478	surveillance for 48 hours. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Dithiodipropionic, Part Number 5062-2479	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
td 1nmol 10/PK, Part Number 5061-3330	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
AA, std 25pmol 10/PK, Part Number 5061-3333	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
AA, std 10pmol 10/PK, Part Number 5061-3334	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	
: Sarcosine, Part Number 5062-2478	No specific treatment.
L-Tryptophan, Part Number 5062-2478	No specific treatment.
L-Norvaline, Part Number 5062-2478	No specific treatment.
L-Glutamine, Part Number 5062-2478	No specific treatment.
L-Asparagine, Part Number 5062-2478	No specific treatment.
L-4-Hydroxyproline, Part Number 5062-2478	No specific treatment.
Dithiodipropionic, Part Number 5062-2479	No specific treatment.
td 1nmol 10/PK, Part Number 5061-3330	No specific treatment.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific treatment.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific treatment.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific treatment.
AA, std 10pmol 10/PK, Part Number 5061-3334	No specific treatment.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No specific treatment.

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	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No specific treatment.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No specific treatment.
Protection of first-aiders	: Sarcosine, Part Number 5062-2478	No action shall be taken involving any personal risk or without suitable training.
	L-Tryptophan, Part Number 5062-2478	No action shall be taken involving any personal risk or without suitable training.
	L-Norvaline, Part Number 5062-2478	No action shall be taken involving any personal risk or without suitable training.
	L-Glutamine, Part Number 5062-2478	No action shall be taken involving any personal risk or without suitable training.
	L-Asparagine, Part Number 5062-2478	No action shall be taken involving any personal risk or without suitable training.
	L-4-Hydroxyproline, Part Number 5062-2478	No action shall be taken involving any personal risk or without suitable training.
	Dithiodipropionic, Part Number 5062-2479	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	td 1nmol 10/PK, Part Number 5061-3330	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing

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apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media

Sarcosine, Part Number 5062-2478	Use dry chemical powder.
L-Tryptophan, Part Number 5062-2478	Use dry chemical powder.
L-Norvaline, Part Number 5062-2478	Use dry chemical powder.
L-Glutamine, Part Number 5062-2478	Use dry chemical powder.
L-Asparagine, Part Number 5062-2478	Use dry chemical powder.
L-4-Hydroxyproline, Part Number 5062-2478	Use dry chemical powder.
Dithiodipropionic, Part Number 5062-2479	Use dry chemical powder.
td 1nmol 10/PK, Part Number 5061-3330	Use an extinguishing agent suitable for the surrounding fire.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Use an extinguishing agent suitable for the surrounding fire.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Use an extinguishing agent suitable for the surrounding fire.
AA, std 25pmol 10/PK, Part Number 5061-3333	Use an extinguishing agent suitable for the surrounding fire.
AA, std 10pmol 10/PK, Part Number 5061-3334	Use an extinguishing agent suitable for the surrounding fire.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Use an extinguishing agent suitable for the surrounding fire.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Use dry chemical, CO ₂ , water spray (fog) or foam.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media

Sarcosine, Part Number 5062-2478	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
L-Tryptophan, Part Number 5062-2478	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
L-Norvaline, Part Number 5062-2478	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
L-Glutamine, Part Number 5062-2478	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
L-Asparagine, Part Number 5062-2478	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
L-4-Hydroxyproline, Part Number 5062-2478	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
Dithiodipropionic, Part Number 5062-2479	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
td 1nmol 10/PK, Part Number 5061-3330	None known.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	None known.

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	AA, standard 100PMOL 10/PK, Part Number 5061-3332	None known.
	AA, std 25pmol 10/PK, Part Number 5061-3333	None known.
	AA, std 10pmol 10/PK, Part Number 5061-3334	None known.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	None known.
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Do not use water jet.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	None known.
Specific hazards arising from the chemical	: Sarcosine, Part Number 5062-2478	May form explosible dust-air mixture if dispersed.
	L-Tryptophan, Part Number 5062-2478	May form explosible dust-air mixture if dispersed.
	L-Norvaline, Part Number 5062-2478	May form explosible dust-air mixture if dispersed.
	L-Glutamine, Part Number 5062-2478	May form explosible dust-air mixture if dispersed.
	L-Asparagine, Part Number 5062-2478	May form explosible dust-air mixture if dispersed.
	L-4-Hydroxyproline, Part Number 5062-2478	May form explosible dust-air mixture if dispersed.
	Dithiodipropionic, Part Number 5062-2479	May form explosible dust-air mixture if dispersed.
	td 1nmol 10/PK, Part Number 5061-3330	In a fire or if heated, a pressure increase will occur and the container may burst.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	In a fire or if heated, a pressure increase will occur and the container may burst.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	In a fire or if heated, a pressure increase will occur and the container may burst.
	AA, std 25pmol 10/PK, Part Number 5061-3333	In a fire or if heated, a pressure increase will occur and the container may burst.
	AA, std 10pmol 10/PK, Part Number 5061-3334	In a fire or if heated, a pressure increase will occur and the container may burst.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: Sarcosine, Part Number 5062-2478	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	L-Tryptophan, Part Number 5062-2478	Decomposition products may include the following materials: carbon dioxide

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L-Norvaline, Part Number 5062-2478	carbon monoxide nitrogen oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
L-Glutamine, Part Number 5062-2478	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
L-Asparagine, Part Number 5062-2478	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
L-4-Hydroxyproline, Part Number 5062-2478	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
Dithiodipropionic, Part Number 5062-2479	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
td 1nmol 10/PK, Part Number 5061-3330	No specific data.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides Formaldehyde.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides cyanides
Buffer, Borate 100ml/BT, Part Number 5061-3339	No specific data.

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Special protective actions for fire-fighters	: Sarcosine, Part Number 5062-2478	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	L-Tryptophan, Part Number 5062-2478	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	L-Norvaline, Part Number 5062-2478	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	L-Glutamine, Part Number 5062-2478	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	L-Asparagine, Part Number 5062-2478	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	L-4-Hydroxyproline, Part Number 5062-2478	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	Dithiodipropionic, Part Number 5062-2479	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	td 1nmol 10/PK, Part Number 5061-3330	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	OPA reagent, 10 mg/ml, 6	Promptly isolate the scene by removing all persons

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Special protective equipment for fire-fighters

ampoules, Part Number 5061-3335	from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
: Sarcosine, Part Number 5062-2478	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
L-Tryptophan, Part Number 5062-2478	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
L-Norvaline, Part Number 5062-2478	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
L-Glutamine, Part Number 5062-2478	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
L-Asparagine, Part Number 5062-2478	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
L-4-Hydroxyproline, Part Number 5062-2478	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Dithiodipropionic, Part Number 5062-2479	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
td 1nmol 10/PK, Part Number 5061-3330	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
AA, std 25pmol 10/PK, Part Number 5061-3333	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
AA, std 10pmol 10/PK, Part Number 5061-3334	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus

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	5061-3335	(SCBA) with a full face-piece operated in positive pressure mode.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hazchem code	: Sarcosine, Part Number 5062-2478	Not available.
	L-Tryptophan, Part Number 5062-2478	Not available.
	L-Norvaline, Part Number 5062-2478	Not available.
	L-Glutamine, Part Number 5062-2478	Not available.
	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	2R
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	2R
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	2R
	AA, std 25pmol 10/PK, Part Number 5061-3333	2R
	AA, std 10pmol 10/PK, Part Number 5061-3334	2R
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	•2YE
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Not available.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Sarcosine, Part Number 5062-2478	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
	L-Tryptophan, Part Number 5062-2478	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal

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L-Norvaline, Part Number 5062-2478	protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
L-Glutamine, Part Number 5062-2478	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
L-Asparagine, Part Number 5062-2478	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
L-4-Hydroxyproline, Part Number 5062-2478	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
Dithiodipropionic, Part Number 5062-2479	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
td 1nmol 10/PK, Part Number 5061-3330	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist.

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AA, std 25pmol 10/PK, Part Number 5061-3333	Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
AA, std 10pmol 10/PK, Part Number 5061-3334	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Buffer, Borate 100ml/BT, Part Number 5061-3339	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders : Sarcosine, Part Number 5062-2478	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
L-Tryptophan, Part Number 5062-2478	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
L-Norvaline, Part Number 5062-2478	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
L-Glutamine, Part Number 5062-2478	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
L-Asparagine, Part Number 5062-2478	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on

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L-4-Hydroxyproline, Part Number 5062-2478	suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Dithiodipropionic, Part Number 5062-2479	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
td 1nmol 10/PK, Part Number 5061-3330	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
AA, standard 250PMOL 10/PK, Part Number 5061-3331	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
AA, standard 100PMOL 10/PK, Part Number 5061-3332	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
AA, std 25pmol 10/PK, Part Number 5061-3333	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
AA, std 10pmol 10/PK, Part Number 5061-3334	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Buffer, Borate 100ml/BT, Part Number 5061-3339	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions :	Sarcosine, Part Number 5062-2478	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	L-Tryptophan, Part Number 5062-2478	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	L-Norvaline, Part Number 5062-2478	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	L-Glutamine, Part Number 5062-2478	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 6. Accidental release measures

L-Asparagine, Part Number 5062-2478	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
L-4-Hydroxyproline, Part Number 5062-2478	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Dithiodipropionic, Part Number 5062-2479	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
td 1nmol 10/PK, Part Number 5061-3330	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
AA, std 25pmol 10/PK, Part Number 5061-3333	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
AA, std 10pmol 10/PK, Part Number 5061-3334	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Buffer, Borate 100ml/BT, Part Number 5061-3339	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

[Methods and material for containment and cleaning up](#)

Section 6. Accidental release measures

Methods for cleaning up	: Sarcosine, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	L-Tryptophan, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	L-Norvaline, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	L-Glutamine, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	L-Asparagine, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	L-4-Hydroxyproline, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	Dithiodipropionic, Part Number 5062-2479	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
	td 1nmol 10/PK, Part Number 5061-3330	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium

Section 6. Accidental release measures

OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335

hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Buffer, Borate 100ml/BT, Part Number 5061-3339

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Sarcosine, Part Number 5062-2478

Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

L-Tryptophan, Part Number 5062-2478

Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

L-Norvaline, Part Number 5062-2478

Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other

Section 7. Handling and storage

L-Glutamine, Part Number
5062-2478

ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

L-Asparagine, Part Number
5062-2478

Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

L-4-Hydroxyproline, Part
Number 5062-2478

Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

Dithiodipropionic, Part
Number 5062-2479

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by

Section 7. Handling and storage

td 1nmol 10/PK, Part
Number 5061-3330

earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

AA, standard 250PMOL
10/PK, Part Number
5061-3331

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

AA, standard 100PMOL
10/PK, Part Number
5061-3332

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

AA, std 25pmol 10/PK, Part
Number 5061-3333

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

AA, std 10pmol 10/PK, Part
Number 5061-3334

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

OPA reagent, 10 mg/ml, 6
ampoules, Part Number
5061-3335

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept

Section 7. Handling and storage

tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Fmoc reagent 10 ampoules
1ml ea for AAA, Part
Number 5061-3337

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Buffer, Borate 100ml/BT,
Part Number 5061-3339

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Sarcosine, Part Number
5062-2478

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

L-Tryptophan, Part Number
5062-2478

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

L-Norvaline, Part Number
5062-2478

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

L-Glutamine, Part Number
5062-2478

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

L-Asparagine, Part Number
5062-2478

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face

Section 7. Handling and storage

L-4-Hydroxyproline, Part Number 5062-2478	before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Dithiodipropionic, Part Number 5062-2479	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
td 1nmol 10/PK, Part Number 5061-3330	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
AA, std 25pmol 10/PK, Part Number 5061-3333	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
AA, std 10pmol 10/PK, Part Number 5061-3334	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face

Section 7. Handling and storage

Buffer, Borate 100ml/BT,
Part Number 5061-3339

before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Sarcosine, Part Number 5062-2478

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

L-Tryptophan, Part Number 5062-2478

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

L-Norvaline, Part Number 5062-2478

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

L-Glutamine, Part Number 5062-2478

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

L-Asparagine, Part Number 5062-2478

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool

Section 7. Handling and storage

L-4-Hydroxyproline, Part
Number 5062-2478

and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Dithiodipropionic, Part
Number 5062-2479

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

td 1nmol 10/PK, Part
Number 5061-3330

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

AA, standard 250PMOL
10/PK, Part Number
5061-3331

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

AA, standard 100PMOL
10/PK, Part Number
5061-3332

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully

Section 7. Handling and storage

AA, std 25pmol 10/PK, Part Number 5061-3333

resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

AA, std 10pmol 10/PK, Part Number 5061-3334

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Buffer, Borate 100ml/BT, Part Number 5061-3339

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
<p>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide</p> <p>boric acid</p> <p>Methanol</p> <p>Potassium thiocyanate</p>	<p>Safe Work Australia (Australia, 1/2014). TWA: 2 mg/m³ 8 hours.</p> <p>ACGIH TLV (United States, 3/2016). TWA: 2 mg/m³ 8 hours. Form: Inhalable fraction STEL: 6 mg/m³ 15 minutes. Form: Inhalable fraction</p> <p>Safe Work Australia (Australia, 1/2014). Absorbed through skin. STEL: 328 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 262 mg/m³ 8 hours. TWA: 200 ppm 8 hours.</p> <p>Safe Work Australia (Australia, 1/2014). Absorbed through skin. TWA: 5 mg/m³, (as CN) 8 hours.</p>
<p>FMO reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile</p>	<p>Safe Work Australia (Australia, 1/2014). Absorbed through skin. STEL: 101 mg/m³ 15 minutes. STEL: 60 ppm 15 minutes. TWA: 67 mg/m³ 8 hours. TWA: 40 ppm 8 hours.</p>
<p>Buffer, Borate 100ml/BT, Part Number 5061-3339 boric acid</p>	<p>ACGIH TLV (United States, 3/2016). TWA: 2 mg/m³ 8 hours. Form: Inhalable fraction STEL: 6 mg/m³ 15 minutes. Form: Inhalable fraction</p>

Appropriate engineering controls

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls and personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state**
- | | |
|--|--------------------------------------|
| Sarcosine, Part Number 5062-2478 | Solid. [Powder. Deliquescent solid.] |
| L-Tryptophan, Part Number 5062-2478 | Solid. [Crystalline powder.] |
| L-Norvaline, Part Number 5062-2478 | Solid. [Crystalline powder.] |
| L-Glutamine, Part Number 5062-2478 | Solid. [Needles.] |
| L-Asparagine, Part Number 5062-2478 | Solid. [Crystals.] |
| L-4-Hydroxyproline, Part Number 5062-2478 | Solid. [Crystals.] |
| Dithiodipropionic, Part Number 5062-2479 | Solid. [Powder.] |
| td 1nmol 10/PK, Part Number 5061-3330 | Liquid. |
| AA, standard 250PMOL 10/PK, Part Number 5061-3331 | Liquid. |
| AA, standard 100PMOL 10/PK, Part Number 5061-3332 | Liquid. |
| AA, std 25pmol 10/PK, Part Number 5061-3333 | Liquid. |
| AA, std 10pmol 10/PK, Part Number 5061-3334 | Liquid. |
| OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 | Liquid. |
| FMOc reagent 10 ampoules 1ml ea for AAA, Part | Liquid. [Clear.] |

Section 9. Physical and chemical properties

	Number 5061-3337	
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Liquid. [Clear.]
Colour	: Sarcosine, Part Number 5062-2478	Not available.
	L-Tryptophan, Part Number 5062-2478	White to yellowish.
	L-Norvaline, Part Number 5062-2478	Not available.
	L-Glutamine, Part Number 5062-2478	Not available.
	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	White.
	Dithiodipropionic, Part Number 5062-2479	White.
	td 1nmol 10/PK, Part Number 5061-3330	Colourless.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Colourless.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Colourless.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Colourless.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Colourless.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Yellow. [Light]
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Colourless.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Colourless.
Odour	: Sarcosine, Part Number 5062-2478	Not available.
	L-Tryptophan, Part Number 5062-2478	Odourless.
	L-Norvaline, Part Number 5062-2478	Not available.
	L-Glutamine, Part Number 5062-2478	Not available.
	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	Odourless.
	Dithiodipropionic, Part Number 5062-2479	Unpleasant. [Strong]
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.

Section 9. Physical and chemical properties

	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Slight
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Ethereal. [Slight]
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Slight
Odour threshold	: Sarcosine, Part Number 5062-2478	Not available.
	L-Tryptophan, Part Number 5062-2478	Not available.
	L-Norvaline, Part Number 5062-2478	Not available.
	L-Glutamine, Part Number 5062-2478	Not available.
	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	70 ppm
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Not available.
pH	: Sarcosine, Part Number 5062-2478	Not available.
	L-Tryptophan, Part Number 5062-2478	5.5 to 7 [Conc. (% w/w): 1%]
	L-Norvaline, Part Number 5062-2478	Not available.
	L-Glutamine, Part Number 5062-2478	Not available.
	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	1.5
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	1.5
	AA, standard 100PMOL 10/PK, Part Number	1.5

Section 9. Physical and chemical properties

	5061-3332	
	AA, std 25pmol 10/PK, Part Number 5061-3333	1.5
	AA, std 10pmol 10/PK, Part Number 5061-3334	1.5
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	10.4
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not available.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	10.4
Melting point	: Sarcosine, Part Number 5062-2478	208 to 212°C (406.4 to 413.6°F)
	L-Tryptophan, Part Number 5062-2478	278.3 to 279.3°C (532.9 to 534.7°F)
	L-Norvaline, Part Number 5062-2478	300°C (572°F)
	L-Glutamine, Part Number 5062-2478	Decomposition temperature: 185°C (365°F)
	L-Asparagine, Part Number 5062-2478	234 to 235°C (453.2 to 455°F)
	L-4-Hydroxyproline, Part Number 5062-2478	274°C (525.2°F)
	Dithiodipropionic, Part Number 5062-2479	155 to 158°C (311 to 316.4°F)
	td 1nmol 10/PK, Part Number 5061-3330	0°C (32°F)
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	0°C (32°F)
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	0°C (32°F)
	AA, std 25pmol 10/PK, Part Number 5061-3333	0°C (32°F)
	AA, std 10pmol 10/PK, Part Number 5061-3334	0°C (32°F)
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	-45°C (-49°F)
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Not available.
Boiling point	: Sarcosine, Part Number 5062-2478	Not available.
	L-Tryptophan, Part Number 5062-2478	Not available.
	L-Norvaline, Part Number 5062-2478	Not available.
	L-Glutamine, Part Number 5062-2478	Not available.
	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	100°C (212°F)

Section 9. Physical and chemical properties

AA, standard 250PMOL 10/PK, Part Number 5061-3331	100°C (212°F)
AA, standard 100PMOL 10/PK, Part Number 5061-3332	100°C (212°F)
AA, std 25pmol 10/PK, Part Number 5061-3333	100°C (212°F)
AA, std 10pmol 10/PK, Part Number 5061-3334	100°C (212°F)
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	81.6°C (178.9°F)
Buffer, Borate 100ml/BT, Part Number 5061-3339	Not available.
Flash point : Sarcosine, Part Number 5062-2478	Not available.
L-Tryptophan, Part Number 5062-2478	Not available.
L-Norvaline, Part Number 5062-2478	Not available.
L-Glutamine, Part Number 5062-2478	Not available.
L-Asparagine, Part Number 5062-2478	Not available.
L-4-Hydroxyproline, Part Number 5062-2478	Not available.
Dithiodipropionic, Part Number 5062-2479	Not available.
td 1nmol 10/PK, Part Number 5061-3330	Not available.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Closed cup: 2°C (35.6°F)
Buffer, Borate 100ml/BT, Part Number 5061-3339	Not available.
Evaporation rate : Sarcosine, Part Number 5062-2478	Not available.
L-Tryptophan, Part Number 5062-2478	Not available.
L-Norvaline, Part Number 5062-2478	Not available.
L-Glutamine, Part Number 5062-2478	Not available.
L-Asparagine, Part Number 5062-2478	Not available.
L-4-Hydroxyproline, Part	Not available.

Section 9. Physical and chemical properties

	Number 5062-2478	
	Dithiodipropionic, Part	Not available.
	Number 5062-2479	
	td 1nmol 10/PK, Part	Not available.
	Number 5061-3330	
	AA, standard 250PMOL	Not available.
	10/PK, Part Number	
	5061-3331	
	AA, standard 100PMOL	Not available.
	10/PK, Part Number	
	5061-3332	
	AA, std 25pmol 10/PK, Part	Not available.
	Number 5061-3333	
	AA, std 10pmol 10/PK, Part	Not available.
	Number 5061-3334	
	OPA reagent, 10 mg/ml, 6	<1 (butyl acetate = 1)
	ampoules, Part Number	
	5061-3335	
	Fmoc reagent 10 ampoules	5.79 (butyl acetate = 1)
	1ml ea for AAA, Part	
	Number 5061-3337	
	Buffer, Borate 100ml/BT,	<1 (butyl acetate = 1)
	Part Number 5061-3339	
Flammability (solid, gas)	: Sarcosine, Part Number	Not available.
	5062-2478	
	L-Tryptophan, Part Number	Not available.
	5062-2478	
	L-Norvaline, Part Number	Not available.
	5062-2478	
	L-Glutamine, Part Number	Not available.
	5062-2478	
	L-Asparagine, Part Number	Not available.
	5062-2478	
	L-4-Hydroxyproline, Part	Not available.
	Number 5062-2478	
	Dithiodipropionic, Part	Not available.
	Number 5062-2479	
	td 1nmol 10/PK, Part	Not applicable.
	Number 5061-3330	
	AA, standard 250PMOL	Not applicable.
	10/PK, Part Number	
	5061-3331	
	AA, standard 100PMOL	Not applicable.
	10/PK, Part Number	
	5061-3332	
	AA, std 25pmol 10/PK, Part	Not applicable.
	Number 5061-3333	
	AA, std 10pmol 10/PK, Part	Not applicable.
	Number 5061-3334	
	OPA reagent, 10 mg/ml, 6	Not applicable.
	ampoules, Part Number	
	5061-3335	
	Fmoc reagent 10 ampoules	Not applicable.
	1ml ea for AAA, Part	
	Number 5061-3337	
	Buffer, Borate 100ml/BT,	Not applicable.
	Part Number 5061-3339	

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	Sarcosine, Part Number 5062-2478	Not available.	
	L-Tryptophan, Part Number 5062-2478	Not available.	
	L-Norvaline, Part Number 5062-2478	Not available.	
	L-Glutamine, Part Number 5062-2478	Not available.	
	L-Asparagine, Part Number 5062-2478	Not available.	
	L-4-Hydroxyproline, Part Number 5062-2478	Not available.	
	Dithiodipropionic, Part Number 5062-2479	Not available.	
	td 1nmol 10/PK, Part Number 5061-3330	Not available.	
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.	
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.	
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.	
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.	
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.	
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Lower: 4.4%	
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Upper: 16% Not available.	
	Vapour pressure	Sarcosine, Part Number 5062-2478	Not available.
		L-Tryptophan, Part Number 5062-2478	0 kPa (0 mm Hg) [room temperature]
		L-Norvaline, Part Number 5062-2478	Not available.
		L-Glutamine, Part Number 5062-2478	Not available.
		L-Asparagine, Part Number 5062-2478	0.000000064 kPa (0.000000048 mm Hg) [room temperature]
L-4-Hydroxyproline, Part Number 5062-2478		Not available.	
Dithiodipropionic, Part Number 5062-2479		Not available.	
td 1nmol 10/PK, Part Number 5061-3330		Not available.	
AA, standard 250PMOL 10/PK, Part Number 5061-3331		Not available.	
AA, standard 100PMOL 10/PK, Part Number 5061-3332		Not available.	
AA, std 25pmol 10/PK, Part Number 5061-3333		Not available.	
AA, std 10pmol 10/PK, Part Number 5061-3334		Not available.	
OPA reagent, 10 mg/ml, 6 ampoules, Part Number		Not available.	

Section 9. Physical and chemical properties

	5061-3335	
	Fmoc reagent 10 ampoules	Not available.
	1ml ea for AAA, Part	
	Number 5061-3337	
	Buffer, Borate 100ml/BT,	Not available.
	Part Number 5061-3339	
Vapour density	: Sarcosine, Part Number	Not available.
	5062-2478	
	L-Tryptophan, Part Number	Not available.
	5062-2478	
	L-Norvaline, Part Number	Not available.
	5062-2478	
	L-Glutamine, Part Number	Not available.
	5062-2478	
	L-Asparagine, Part Number	Not available.
	5062-2478	
	L-4-Hydroxyproline, Part	4.5 [Air = 1]
	Number 5062-2478	
	Dithiodipropionic, Part	Not available.
	Number 5062-2479	
	td 1nmol 10/PK, Part	Not available.
	Number 5061-3330	
	AA, standard 250PMOL	Not available.
	10/PK, Part Number	
	5061-3331	
	AA, standard 100PMOL	Not available.
	10/PK, Part Number	
	5061-3332	
	AA, std 25pmol 10/PK, Part	Not available.
	Number 5061-3333	
	AA, std 10pmol 10/PK, Part	Not available.
	Number 5061-3334	
	OPA reagent, 10 mg/ml, 6	Not available.
	ampoules, Part Number	
	5061-3335	
	Fmoc reagent 10 ampoules	Not available.
	1ml ea for AAA, Part	
	Number 5061-3337	
	Buffer, Borate 100ml/BT,	Not available.
	Part Number 5061-3339	
Relative density	: Sarcosine, Part Number	Not available.
	5062-2478	
	L-Tryptophan, Part Number	1.34
	5062-2478	
	L-Norvaline, Part Number	Not available.
	5062-2478	
	L-Glutamine, Part Number	Not available.
	5062-2478	
	L-Asparagine, Part Number	Not available.
	5062-2478	
	L-4-Hydroxyproline, Part	Not available.
	Number 5062-2478	
	Dithiodipropionic, Part	Not available.
	Number 5062-2479	
	td 1nmol 10/PK, Part	Not available.
	Number 5061-3330	
	AA, standard 250PMOL	Not available.
	10/PK, Part Number	
	5061-3331	
	AA, standard 100PMOL	Not available.
	10/PK, Part Number	
	5061-3332	
	AA, std 25pmol 10/PK, Part	Not available.

Section 9. Physical and chemical properties

	Number 5061-3333	
	AA, std 10pmol 10/PK, Part	Not available.
	Number 5061-3334	
	OPA reagent, 10 mg/ml, 6	1.045
	ampoules, Part Number	
	5061-3335	
	Fmoc reagent 10 ampoules	0.78
	1ml ea for AAA, Part	
	Number 5061-3337	
	Buffer, Borate 100ml/BT,	1.009
	Part Number 5061-3339	
Solubility	: Sarcosine, Part Number	Soluble in the following materials: cold water and hot water.
	5062-2478	
	L-Tryptophan, Part Number	Soluble in the following materials: cold water and hot water.
	5062-2478	
	L-Norvaline, Part Number	Insoluble in the following materials: diethyl ether.
	5062-2478	Soluble in the following materials: cold water and hot water.
	L-Glutamine, Part Number	Easily soluble in the following materials: cold water
	5062-2478	and hot water.
	L-Asparagine, Part Number	Very slightly soluble in the following materials:
	5062-2478	methanol and diethyl ether.
	L-4-Hydroxyproline, Part	Soluble in the following materials: cold water and hot
	Number 5062-2478	water.
	Dithiodipropionic, Part	Soluble in the following materials: cold water and hot
	Number 5062-2479	water.
	td 1nmol 10/PK, Part	Easily soluble in the following materials: cold water
	Number 5061-3330	and hot water.
	AA, standard 250PMOL	Easily soluble in the following materials: cold water
	10/PK, Part Number	and hot water.
	5061-3331	
	AA, standard 100PMOL	Easily soluble in the following materials: cold water
	10/PK, Part Number	and hot water.
	5061-3332	
	AA, std 25pmol 10/PK, Part	Easily soluble in the following materials: cold water
	Number 5061-3333	and hot water.
	AA, std 10pmol 10/PK, Part	Easily soluble in the following materials: cold water
	Number 5061-3334	and hot water.
	OPA reagent, 10 mg/ml, 6	Easily soluble in the following materials: cold water
	ampoules, Part Number	and hot water.
	5061-3335	
	Fmoc reagent 10 ampoules	Soluble in the following materials: cold water and hot
	1ml ea for AAA, Part	water.
	Number 5061-3337	
	Buffer, Borate 100ml/BT,	Soluble in the following materials: cold water and hot
	Part Number 5061-3339	water.
Partition coefficient: n-octanol/water	: Sarcosine, Part Number	-2.78
	5062-2478	
	L-Tryptophan, Part Number	-1.06
	5062-2478	
	L-Norvaline, Part Number	-2.11
	5062-2478	
	L-Glutamine, Part Number	-3.64
	5062-2478	
	L-Asparagine, Part Number	-3.82
	5062-2478	
	L-4-Hydroxyproline, Part	-3.17
	Number 5062-2478	
	Dithiodipropionic, Part	Not available.
	Number 5062-2479	
	td 1nmol 10/PK, Part	Not available.
	Number 5061-3330	
	AA, standard 250PMOL	Not available.

Section 9. Physical and chemical properties

	10/PK, Part Number 5061-3331	AA, standard 100PMOL	Not available.
	10/PK, Part Number 5061-3332	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	10/PK, Part Number 5061-3334	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	5061-3335	OPA reagent, 10 mg/ml, 6 ampoules, Part Number	Not available.
	5061-3337	Fmoc reagent 10 ampoules 1ml ea for AAA, Part	<1
	5061-3339	Buffer, Borate 100ml/BT, Part Number	Not available.
Auto-ignition temperature	:	Sarcosine, Part Number 5062-2478	Not available.
		L-Tryptophan, Part Number 5062-2478	>400°C (>752°F)
		L-Norvaline, Part Number 5062-2478	Not available.
		L-Glutamine, Part Number 5062-2478	Not available.
		L-Asparagine, Part Number 5062-2478	Not available.
		L-4-Hydroxyproline, Part Number 5062-2478	Not available.
		Dithiodipropionic, Part Number 5062-2479	Not available.
		td 1nmol 10/PK, Part Number 5061-3330	Not available.
		AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
		AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
		AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	524°C (975.2°F)
		Buffer, Borate 100ml/BT, Part Number 5061-3339	Not available.
Decomposition temperature	:	Sarcosine, Part Number 5062-2478	212°C (413.6°F)
		L-Tryptophan, Part Number 5062-2478	289°C (552.2°F)
		L-Norvaline, Part Number 5062-2478	Not available.
		L-Glutamine, Part Number 5062-2478	185°C (365°F)
		L-Asparagine, Part Number 5062-2478	Not available.
		L-4-Hydroxyproline, Part Number 5062-2478	275°C (527°F)

Section 9. Physical and chemical properties

	Dithiodipropionic, Part Number 5062-2479	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not available.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Not available.
Viscosity	: Sarcosine, Part Number 5062-2478	Not available.
	L-Tryptophan, Part Number 5062-2478	Not available.
	L-Norvaline, Part Number 5062-2478	Not available.
	L-Glutamine, Part Number 5062-2478	Not available.
	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not available.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Not available.

Section 10. Stability and reactivity

Reactivity	: Sarcosine, Part Number 5062-2478 L-Tryptophan, Part Number 5062-2478 L-Norvaline, Part Number 5062-2478 L-Glutamine, Part Number 5062-2478 L-Asparagine, Part Number 5062-2478 L-4-Hydroxyproline, Part Number 5062-2478 Dithiodipropionic, Part Number 5062-2479 td 1nmol 10/PK, Part Number 5061-3330 AA, standard 250PMOL 10/PK, Part Number 5061-3331 AA, standard 100PMOL 10/PK, Part Number 5061-3332 AA, std 25pmol 10/PK, Part Number 5061-3333 AA, std 10pmol 10/PK, Part Number 5061-3334 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Buffer, Borate 100ml/BT, Part Number 5061-3339	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: Sarcosine, Part Number 5062-2478 L-Tryptophan, Part Number 5062-2478 L-Norvaline, Part Number 5062-2478 L-Glutamine, Part Number 5062-2478 L-Asparagine, Part Number 5062-2478 L-4-Hydroxyproline, Part Number 5062-2478 Dithiodipropionic, Part Number 5062-2479 td 1nmol 10/PK, Part Number 5061-3330 AA, standard 250PMOL 10/PK, Part Number 5061-3331 AA, standard 100PMOL 10/PK, Part Number 5061-3332 AA, std 25pmol 10/PK, Part Number 5061-3333 AA, std 10pmol 10/PK, Part Number 5061-3334 OPA reagent, 10 mg/ml, 6 ampoules, Part Number	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.

Section 10. Stability and reactivity

5061-3335
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337
Buffer, Borate 100ml/BT, Part Number 5061-3339

The product is stable.
The product is stable.

Possibility of hazardous reactions

: Sarcosine, Part Number 5062-2478
L-Tryptophan, Part Number 5062-2478
L-Norvaline, Part Number 5062-2478
L-Glutamine, Part Number 5062-2478
L-Asparagine, Part Number 5062-2478
L-4-Hydroxyproline, Part Number 5062-2478
Dithiodipropionic, Part Number 5062-2479
td 1nmol 10/PK, Part Number 5061-3330
AA, standard 250PMOL 10/PK, Part Number 5061-3331
AA, standard 100PMOL 10/PK, Part Number 5061-3332
AA, std 25pmol 10/PK, Part Number 5061-3333
AA, std 10pmol 10/PK, Part Number 5061-3334
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337
Buffer, Borate 100ml/BT, Part Number 5061-3339

Under normal conditions of storage and use, hazardous reactions will not occur.
Under normal conditions of storage and use, hazardous reactions will not occur.
Under normal conditions of storage and use, hazardous reactions will not occur.
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Under normal conditions of storage and use, hazardous reactions will not occur.
Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

: Sarcosine, Part Number 5062-2478

L-Tryptophan, Part Number 5062-2478

L-Norvaline, Part Number 5062-2478

Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.

Section 10. Stability and reactivity

L-Glutamine, Part Number 5062-2478	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
L-Asparagine, Part Number 5062-2478	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
L-4-Hydroxyproline, Part Number 5062-2478	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
Dithiodipropionic, Part Number 5062-2479	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.
td 1nmol 10/PK, Part Number 5061-3330	No specific data.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No specific data.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Store away from direct sunlight.
Buffer, Borate 100ml/BT, Part Number 5061-3339	No specific data.

Incompatible materials	: Sarcosine, Part Number 5062-2478	Reactive or incompatible with the following materials: oxidizing materials
	L-Tryptophan, Part Number 5062-2478	Reactive or incompatible with the following materials: oxidizing materials
	L-Norvaline, Part Number 5062-2478	Reactive or incompatible with the following materials: oxidizing materials
	L-Glutamine, Part Number 5062-2478	Reactive or incompatible with the following materials: oxidizing materials
	L-Asparagine, Part Number	Reactive or incompatible with the following materials: oxidizing materials

Section 10. Stability and reactivity

5062-2478		oxidizing materials
L-4-Hydroxyproline, Part Number 5062-2478		Reactive or incompatible with the following materials:
Dithiodipropionic, Part Number 5062-2479		oxidizing materials Reactive or incompatible with the following materials:
td 1nmol 10/PK, Part Number 5061-3330		oxidizing materials Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis metals
AA, standard 250PMOL 10/PK, Part Number 5061-3331		Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis metals
AA, standard 100PMOL 10/PK, Part Number 5061-3332		Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis metals
AA, std 25pmol 10/PK, Part Number 5061-3333		Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis metals
AA, std 10pmol 10/PK, Part Number 5061-3334		Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis metals
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335		May react or be incompatible with oxidising materials.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337		Reactive or incompatible with the following materials:
Buffer, Borate 100ml/BT, Part Number 5061-3339		oxidizing materials May react or be incompatible with oxidising materials.

Hazardous decomposition products

: Sarcosine, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
L-Tryptophan, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
L-Norvaline, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
L-Glutamine, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
L-Asparagine, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 10. Stability and reactivity

L-4-Hydroxyproline, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Dithiodipropionic, Part Number 5062-2479	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
td 1nmol 10/PK, Part Number 5061-3330	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
AA, std 25pmol 10/PK, Part Number 5061-3333	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
AA, std 10pmol 10/PK, Part Number 5061-3334	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
L-Tryptophan, Part Number 5062-2478 L-Tryptophan	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5.17 mg/l	4 hours
	LD50 Oral	Rat	>16 g/kg	-
L-Glutamine, Part Number 5062-2478 Levoglutamide	LD50 Oral	Rat	7500 mg/kg	-
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide	LD50 Oral	Rat	273 mg/kg	-
boric acid	LD50 Oral	Rat	2660 mg/kg	-
3-Mercaptopropionic acid	LC50 Inhalation Dusts and mists	Rat	1818 mg/m ³	4 hours
	LD50 Oral	Rat	96 mg/kg	-
Methanol	LC50 Inhalation Vapour	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapour	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
Phthalaldehyde	LD50 Oral	Rat	121 mg/kg	-
Potassium thiocyanate	LD50 Oral	Rat	854 mg/kg	-
FMOc reagent 10 ampoules 1ml ea for AAA,				

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Part Number 5061-3337 Acetonitrile	LC50 Inhalation Vapour LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
Buffer, Borate 100ml/BT, Part Number 5061-3339 boric acid	LD50 Oral	Rat	2660 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide	Eyes - Moderate irritant	Rabbit	-	24 hours 1 milligrams	-
	Skin - Severe irritant	Guinea pig	-	24 hours 50 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 50 milligrams	-
Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Dithiodipropionic, Part Number 5062-2479 3,3'-dithiobispropionic acid	Category 3	Not applicable.	Respiratory tract irritation
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Methanol Phthalaldehyde	Category 1 Category 3	Not determined Not applicable.	Not determined Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure	: Sarcosine, Part Number 5062-2478	Not available.
	L-Tryptophan, Part Number 5062-2478	Not available.
	L-Norvaline, Part Number 5062-2478	Not available.
	L-Glutamine, Part Number 5062-2478	Not available.
	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	Not available.
	Dithiodipropionic, Part Number 5062-2479	Routes of entry anticipated: Oral, Dermal, Inhalation.
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Routes of entry anticipated: Oral, Dermal, Inhalation.
	FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects**Eye contact**

: Sarcosine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
L-Tryptophan, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
L-Norvaline, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
L-Glutamine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
L-Asparagine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
L-4-Hydroxyproline, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
Dithiodipropionic, Part Number 5062-2479	Causes serious eye irritation.
td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.

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	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Causes serious eye damage.
	FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Causes serious eye irritation.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No known significant effects or critical hazards.
Inhalation	: Sarcosine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	L-Tryptophan, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	L-Norvaline, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	L-Glutamine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	L-Asparagine, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	L-4-Hydroxyproline, Part Number 5062-2478	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	Dithiodipropionic, Part Number 5062-2479	May cause respiratory irritation.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No known significant effects or critical hazards.
	FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Harmful if inhaled.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No known significant effects or critical hazards.

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Skin contact	: Sarcosine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Tryptophan, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Norvaline, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Glutamine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Asparagine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-4-Hydroxyproline, Part Number 5062-2478	No known significant effects or critical hazards.
	Dithiodipropionic, Part Number 5062-2479	Causes skin irritation.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Causes severe burns. May cause an allergic skin reaction.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Harmful in contact with skin.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No known significant effects or critical hazards.
	Ingestion	: Sarcosine, Part Number 5062-2478
L-Tryptophan, Part Number 5062-2478		No known significant effects or critical hazards.
L-Norvaline, Part Number 5062-2478		No known significant effects or critical hazards.
L-Glutamine, Part Number 5062-2478		No known significant effects or critical hazards.
L-Asparagine, Part Number 5062-2478		No known significant effects or critical hazards.
L-4-Hydroxyproline, Part Number 5062-2478		No known significant effects or critical hazards.
Dithiodipropionic, Part Number 5062-2479		No known significant effects or critical hazards.
td 1nmol 10/PK, Part Number 5061-3330		No known significant effects or critical hazards.
AA, standard 250PMOL 10/PK, Part Number 5061-3331		No known significant effects or critical hazards.
AA, standard 100PMOL 10/PK, Part Number 5061-3332		No known significant effects or critical hazards.
AA, std 25pmol 10/PK, Part Number 5061-3333		No known significant effects or critical hazards.
AA, std 10pmol 10/PK, Part Number 5061-3334		No known significant effects or critical hazards.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335		Harmful if swallowed. Corrosive to the digestive tract. Causes burns.

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FMOc reagent 10 ampoules Harmful if swallowed.
 1ml ea for AAA, Part
 Number 5061-3337
 Buffer, Borate 100ml/BT, No known significant effects or critical hazards.
 Part Number 5061-3339

Symptoms related to the physical, chemical and toxicological characteristics**Eye contact**

: Sarcosine, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
L-Tryptophan, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
L-Norvaline, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
L-Glutamine, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
L-Asparagine, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
L-4-Hydroxyproline, Part Number 5062-2478	Adverse symptoms may include the following: irritation redness
Dithiodipropionic, Part Number 5062-2479	Adverse symptoms may include the following: pain or irritation watering redness
td 1nmol 10/PK, Part Number 5061-3330	No specific data.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Adverse symptoms may include the following: pain watering redness
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Adverse symptoms may include the following: pain or irritation watering redness
Buffer, Borate 100ml/BT, Part Number 5061-3339	No specific data.

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Inhalation	: Sarcosine, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	L-Tryptophan, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	L-Norvaline, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	L-Glutamine, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	L-Asparagine, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	L-4-Hydroxyproline, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
	Dithiodipropionic, Part Number 5062-2479	Adverse symptoms may include the following: respiratory tract irritation coughing
	td 1nmol 10/PK, Part Number 5061-3330	No specific data.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No specific data.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations	
Skin contact	: Sarcosine, Part Number 5062-2478	No specific data.
	L-Tryptophan, Part Number 5062-2478	No specific data.
	L-Norvaline, Part Number 5062-2478	No specific data.
	L-Glutamine, Part Number 5062-2478	No specific data.
	L-Asparagine, Part Number	No specific data.

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5062-2478	
L-4-Hydroxyproline, Part Number 5062-2478	No specific data.
Dithiodipropionic, Part Number 5062-2479	Adverse symptoms may include the following:
	irritation
	redness
td 1nmol 10/PK, Part Number 5061-3330	No specific data.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Adverse symptoms may include the following:
	pain or irritation
	redness
	blistering may occur
	reduced foetal weight
	increase in foetal deaths
	skeletal malformations
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No specific data.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Adverse symptoms may include the following:
	reduced foetal weight
	increase in foetal deaths
	skeletal malformations

Ingestion

: Sarcosine, Part Number 5062-2478	No specific data.
L-Tryptophan, Part Number 5062-2478	No specific data.
L-Norvaline, Part Number 5062-2478	No specific data.
L-Glutamine, Part Number 5062-2478	No specific data.
L-Asparagine, Part Number 5062-2478	No specific data.
L-4-Hydroxyproline, Part Number 5062-2478	No specific data.
Dithiodipropionic, Part Number 5062-2479	No specific data.
td 1nmol 10/PK, Part Number 5061-3330	No specific data.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
OPA reagent, 10 mg/ml, 6	Adverse symptoms may include the following:

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ampoules, Part Number
5061-3335

stomach pains
reduced foetal weight
increase in foetal deaths
skeletal malformations
No specific data.

FMOc reagent 10 ampoules
1ml ea for AAA, Part
Number 5061-3337
Buffer, Borate 100ml/BT,
Part Number 5061-3339

Adverse symptoms may include the following:

reduced foetal weight
increase in foetal deaths
skeletal malformations

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Short term exposure**

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General	: Sarcosine, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Tryptophan, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Norvaline, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Glutamine, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Asparagine, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-4-Hydroxyproline, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	Dithiodipropionic, Part Number 5062-2479	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No known significant effects or critical hazards.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No known significant effects or critical hazards.

Section 11. Toxicological information

Carcinogenicity	: Sarcosine, Part Number 5062-2478	No known significant effects or critical hazards.	
	L-Tryptophan, Part Number 5062-2478	No known significant effects or critical hazards.	
	L-Norvaline, Part Number 5062-2478	No known significant effects or critical hazards.	
	L-Glutamine, Part Number 5062-2478	No known significant effects or critical hazards.	
	L-Asparagine, Part Number 5062-2478	No known significant effects or critical hazards.	
	L-4-Hydroxyproline, Part Number 5062-2478	No known significant effects or critical hazards.	
	Dithiodipropionic, Part Number 5062-2479	No known significant effects or critical hazards.	
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.	
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.	
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.	
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.	
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.	
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No known significant effects or critical hazards.	
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No known significant effects or critical hazards.	
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No known significant effects or critical hazards.	
	Mutagenicity	: Sarcosine, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Tryptophan, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Norvaline, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Glutamine, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Asparagine, Part Number 5062-2478	No known significant effects or critical hazards.
L-4-Hydroxyproline, Part Number 5062-2478		No known significant effects or critical hazards.	
Dithiodipropionic, Part Number 5062-2479		No known significant effects or critical hazards.	
td 1nmol 10/PK, Part Number 5061-3330		No known significant effects or critical hazards.	
AA, standard 250PMOL 10/PK, Part Number 5061-3331		No known significant effects or critical hazards.	
AA, standard 100PMOL 10/PK, Part Number 5061-3332		No known significant effects or critical hazards.	
AA, std 25pmol 10/PK, Part Number 5061-3333		No known significant effects or critical hazards.	
AA, std 10pmol 10/PK, Part Number 5061-3334		No known significant effects or critical hazards.	
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335		No known significant effects or critical hazards.	

Section 11. Toxicological information

	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No known significant effects or critical hazards.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No known significant effects or critical hazards.
Teratogenicity	: Sarcosine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Tryptophan, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Norvaline, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Glutamine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Asparagine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-4-Hydroxyproline, Part Number 5062-2478	No known significant effects or critical hazards.
	Dithiodipropionic, Part Number 5062-2479	No known significant effects or critical hazards.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	May damage the unborn child.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No known significant effects or critical hazards.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	May damage the unborn child.
Developmental effects	: Sarcosine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Tryptophan, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Norvaline, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Glutamine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Asparagine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-4-Hydroxyproline, Part Number 5062-2478	No known significant effects or critical hazards.
	Dithiodipropionic, Part Number 5062-2479	No known significant effects or critical hazards.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.

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	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No known significant effects or critical hazards.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No known significant effects or critical hazards.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	No known significant effects or critical hazards.
Fertility effects	: Sarcosine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Tryptophan, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Norvaline, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Glutamine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-Asparagine, Part Number 5062-2478	No known significant effects or critical hazards.
	L-4-Hydroxyproline, Part Number 5062-2478	No known significant effects or critical hazards.
	Dithiodipropionic, Part Number 5062-2479	No known significant effects or critical hazards.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	May damage fertility.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No known significant effects or critical hazards.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	
Oral	1552.8 mg/kg
Dermal	13200 mg/kg
Inhalation (vapours)	132 mg/l
Inhalation (dusts and mists)	90.9 mg/l
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	
Oral	502.5 mg/kg
Dermal	1105.5 mg/kg
Inhalation (vapours)	11.06 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
L-Tryptophan, Part Number 5062-2478 L-Tryptophan	Acute EC50 >100 mg/l Fresh water Acute NOEC 100 mg/l Fresh water	Daphnia - Daphnia magna Daphnia - Daphnia magna	48 hours 48 hours
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide boric acid	Acute LC50 80 ppm Fresh water Acute LC50 45.5 mg/l Fresh water	Fish - Gambusia affinis - Adult Crustaceans - Ceriodaphnia dubia	96 hours 48 hours
3-Mercaptopropionic acid	Acute LC50 133000 µg/l Fresh water Acute LC50 75 mg/l Marine water Chronic NOEC 6000 µg/l Fresh water Acute EC50 9 mg/l Fresh water Acute LC50 15 mg/l Fresh water	Daphnia - Daphnia magna - Neonate Fish - Pagrus major Daphnia - Daphnia magna Daphnia	48 hours 96 hours 21 days 48 hours
Methanol	Acute EC50 24500000 µg/l Fresh water Acute LC50 2500000 µg/l Marine water	Daphnia - Daphnia magna - Larvae Crustaceans - Crangon crangon - Adult	48 hours 48 hours
Phthalaldehyde	Acute LC50 290 mg/l Fresh water Chronic NOEC 9.96 mg/l Marine water Acute EC50 184 ppb Fresh water	Fish - Danio rerio - Egg Algae - Ulva pertusa Algae - Pseudokirchneriella subcapitata	96 hours 96 hours 96 hours
Potassium thiocyanate	Acute EC50 90 ppb Fresh water Acute LC50 20 ppb Fresh water Acute LC50 11000 to 15000 µg/l Fresh water Acute LC50 11000 µg/l Fresh water Chronic NOEC 1100 µg/l Fresh water	Daphnia - Daphnia magna Fish - Oncorhynchus mykiss Daphnia - Daphnia pulex Fish - Oncorhynchus mykiss Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	48 hours 96 hours 48 hours 96 hours 124 days
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	Acute IC50 3685000 µg/l Fresh water Acute LC50 3600000 µg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic NOEC 1000000 µg/l Fresh water Chronic NOEC 160000 µg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Pimephales promelas Aquatic plants - Lemna minor Daphnia - Daphnia magna	96 hours 48 hours 96 hours 96 hours 21 days
Buffer, Borate 100ml/BT, Part Number 5061-3339 boric acid	Acute LC50 45.5 mg/l Fresh water Acute LC50 133000 µg/l Fresh water Acute LC50 75 mg/l Marine water Chronic NOEC 6000 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia Daphnia - Daphnia magna - Neonate Fish - Pagrus major Daphnia - Daphnia magna	48 hours 48 hours 96 hours 21 days

Persistence and degradability

Section 12. Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
L-Tryptophan, Part Number 5062-2478 L-Tryptophan	OECD 301B Ready Biodegradability - CO2 Evolution Test	77 % - 28 days	-	-
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability	
L-Tryptophan, Part Number 5062-2478 L-Tryptophan	-	-	Readily	
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide boric acid	- -	- -	Readily Not readily	
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	-	-	Readily	
Buffer, Borate 100ml/BT, Part Number 5061-3339 boric acid	-	-	Not readily	

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Sarcosine, Part Number 5062-2478 Sarcosine, Part Number 5062-2478	-2.78	-	low
Sarcosine	-2.78	-	low
L-Tryptophan, Part Number 5062-2478 L-Tryptophan, Part Number 5062-2478	-1.06	-	low
L-Tryptophan	-1.06	-	low
L-Norvaline, Part Number 5062-2478 L-Norvaline, Part Number 5062-2478	-2.11	-	low
Norvaline	-2.11	-	low
L-Glutamine, Part Number 5062-2478 L-Glutamine, Part Number 5062-2478	-3.64	-	low
Levoglutamide	-3.64	-	low
L-Asparagine, Part Number 5062-2478 L-Asparagine, Part Number 5062-2478	-3.82	-	low
Asparagine	-3.82	-	low

Section 12. Ecological information

L-4-Hydroxyproline, Part Number 5062-2478			
L-4-Hydroxyproline, Part Number 5062-2478	-3.17	-	low
L-4-Hydroxyproline	-3.17	-	low
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335			
boric acid	-1.09	-	low
3-Mercaptopropionic acid	-2.32	-	low
Methanol	-0.77	<10	low
Potassium thiocyanate	-2.52	-	low
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337			
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	<1	-	low
Acetonitrile	-0.34	3	low
Buffer, Borate 100ml/BT, Part Number 5061-3339			
boric acid	-1.09	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Regulatory information

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code .

Additional information : **Remarks**
De minimis quantities

Section 14. Transport information

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

5

Model Work Health and Safety Regulations - Scheduled Substances

<u>Ingredient name</u>	<u>Schedule</u>
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 methanol	Restricted hazardous chemical [For spray painting if the substance contains more than 1% by volume]

Australia inventory (AICS) : Not determined.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Canada	: Not determined.
China	: Not determined.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: All components are listed or exempted.
Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.
Turkey	: Not determined.
United States	: Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 23/01/2017

Date of previous issue : No previous validation.

Version : 1

Key to abbreviations : ADG = Australian Dangerous Goods
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 NOHSC = National Occupational Health and Safety Commission
 SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
Dithiodipropionic, Part Number 5062-2479 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335	Expert judgment Expert judgment Expert judgment
td 1nmol 10/PK, Part Number 5061-3330 Met. Corr. 1, H290	Expert judgment
AA, standard 250PMOL 10/PK, Part Number 5061-3331 Met. Corr. 1, H290	Expert judgment
AA, standard 100PMOL 10/PK, Part Number 5061-3332 Met. Corr. 1, H290	Expert judgment
AA, std 25pmol 10/PK, Part Number 5061-3333 Met. Corr. 1, H290	Expert judgment
AA, std 10pmol 10/PK, Part Number 5061-3334 Met. Corr. 1, H290	Expert judgment
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Acute Tox. 4, H302 Skin Corr. 1A, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360 (Fertility) Repr. 1B, H360 (Unborn child) STOT SE 2, H371 Aquatic Acute 2, H401 Aquatic Chronic 2, H411	Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2A, H319	On basis of test data Calculation method Calculation method Calculation method Calculation method

Section 16. Any other relevant information

Buffer, Borate 100ml/BT, Part Number 5061-3339 Repr. 1B, H360 (Fertility) Repr. 1B, H360 (Unborn child)	Calculation method Calculation method
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References : Not available.

✔ Indicates information that has changed from previously issued version.

Note * : 5062-2478 AA supplement, 1g ea N 6 x 1 g
A kit containing: Sarcosine; L-Tryptophan; L-Norvaline; L-Glutamine; L-Asparagine; L-4-Hydroxyproline

Notice to reader

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