

# SAFETY DATA SHEET

Amino Acids Kit, Part Number 5063-6588

## Section 1. Identification

<b>Product identifier</b>	: Amino Acids Kit, Part Number 5063-6588	
<b>Part no. (chemical kit)</b>	: 5063-6588	
<b>Part no.</b>	: <input checked="" type="checkbox"/> Sacrosine	Not available.
	: L-Tryptophan	Not available.
	: L-Norvaline	Not available.
	: L-Glutamine	Not available.
	: L-Asparagine	Not available.
	: L-4-Hydroxyproline	Not available.
	: Dithiodipropionic, Part Number 5062-2479	5062-2479
	: Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	5061-3337
	: OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	5061-3335
	: AA, std 10pmol 10/PK, Part Number 5061-3334	5061-3334
	: AA, std 25pmol 10/PK, Part Number 5061-3333	5061-3333
	: AA, standard 100PMOL 10/PK, Part Number 5061-3332	5061-3332
	: td 1nmol 10/PK, Part Number 5061-3330	5061-3330
	: AA, standard 250PMOL 10/PK, Part Number 5061-3331	5061-3331

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

<b>Material uses</b>	: <input checked="" type="checkbox"/> Reagents and Standards for Analytical Chemistry Laboratory Use	
	: <input checked="" type="checkbox"/> Sacrosine	1 g
	: L-Tryptophan	1 g
	: L-Norvaline	1 g
	: L-Glutamine	1 g
	: L-Asparagine	1 g
	: L-4-Hydroxyproline	1 g
	: Dithiodipropionic, Part Number 5062-2479	1 x 5 g
	: Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	10 x 1 ml
	: OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	6 x 1 ml
	: AA, std 10pmol 10/PK, Part Number 5061-3334	10 x 1 ml
	: AA, std 25pmol 10/PK, Part Number 5061-3333	10 x 1 ml
	: AA, standard 100PMOL 10/PK, Part Number 5061-3332	10 x 1 ml
	: 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

**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

## 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

#### **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

#### **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 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2  
 H411 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

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

H290 CORROSIVE TO METALS - Category 1

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

H290 CORROSIVE TO METALS - Category 1

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

H290 CORROSIVE TO METALS - Category 1

#### **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













OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%

Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%

## Section 2. Hazard(s) identification

### GHS label elements

#### Hazard pictograms

: <input checked="" type="checkbox"/> Dithiodipropionic, Part Number 5062-2479	
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	 
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	   
AA, std 10pmol 10/PK, Part Number 5061-3334	
AA, std 25pmol 10/PK, Part Number 5061-3333	
AA, standard 100PMOL 10/PK, Part Number 5061-3332	
td 1nmol 10/PK, Part Number 5061-3330	
AA, standard 250PMOL 10/PK, Part Number 5061-3331	

#### Signal word

: <input checked="" type="checkbox"/> Sarcosine	No signal word.
L-Tryptophan	No signal word.
L-Norvaline	No signal word.
L-Glutamine	No signal word.
L-Asparagine	No signal word.
L-4-Hydroxyproline	No signal word.
Dithiodipropionic, Part Number 5062-2479	WARNING
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	DANGER
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	DANGER
AA, std 10pmol 10/PK, Part Number 5061-3334	WARNING
AA, std 25pmol 10/PK, Part Number 5061-3333	WARNING
AA, standard 100PMOL 10/PK, Part Number 5061-3332	WARNING

## Section 2. Hazard(s) identification

	td 1nmol 10/PK, Part Number 5061-3330	WARNING
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	WARNING
<b>Hazard statements</b>	: <input checked="" type="checkbox"/> Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. H319 - Causes serious eye irritation.  H315 - Causes skin irritation. H335 - May cause respiratory irritation. H225 - Highly flammable liquid and vapour.
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled. H319 - Causes serious eye irritation. H302 - Harmful if swallowed.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	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. H290 - May be corrosive to metals.
	AA, std 10pmol 10/PK, Part Number 5061-3334	H290 - May be corrosive to metals.
	AA, std 25pmol 10/PK, Part Number 5061-3333	H290 - May be corrosive to metals.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	H290 - May be corrosive to metals.
	td 1nmol 10/PK, Part Number 5061-3330	H290 - May be corrosive to metals.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	H290 - May be corrosive to metals.
<b>Precautionary statements</b>		
<b>Prevention</b>	: <input checked="" type="checkbox"/> Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. 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.
	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

## Section 2. Hazard(s) identification

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

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.

P202 - Do not handle until all safety precautions have been read and understood.  
 P281 - Use personal protective equipment as required.  
 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.  
 P234 - Keep only in original container.

AA, std 10pmol 10/PK, Part Number 5061-3334  
 AA, std 25pmol 10/PK, Part Number 5061-3333  
 AA, standard 100PMOL 10/PK, Part Number 5061-3332  
 td 1nmol 10/PK, Part Number 5061-3330  
 AA, standard 250PMOL 10/PK, Part Number 5061-3331

P234 - Keep only in original container.  
 P234 - Keep only in original container.  
 P234 - Keep only in original container.  
 P234 - Keep only in original container.  
 P234 - Keep only in original container.

**Response**

:  Sarcosine  
 L-Tryptophan  
 L-Norvaline  
 L-Glutamine  
 L-Asparagine  
 L-4-Hydroxyproline  
 Dithiodipropionic, Part Number 5062-2479

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.  
 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

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

## Section 2. Hazard(s) identification

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

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.  
 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.

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

P390 - Absorb spillage to prevent material damage.

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

P390 - Absorb spillage to prevent material damage.

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

P390 - Absorb spillage to prevent material damage.

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

P390 - Absorb spillage to prevent material damage.

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

P390 - Absorb spillage to prevent material damage.

### Storage

:  Sarcosine Not applicable.  
 L-Tryptophan Not applicable.  
 L-Norvaline Not applicable.  
 L-Glutamine Not applicable.  
 L-Asparagine Not applicable.  
 L-4-Hydroxyproline Not applicable.  
 Dithiodipropionic, Part Number 5062-2479 P405 - Store locked up.  
 FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 P403 - Store in a well-ventilated place.  
 P235 - Keep cool.  
 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 P405 - Store locked up.

## Section 2. Hazard(s) identification

	AA, std 10pmol 10/PK, Part Number 5061-3334	P406 - Store in corrosive resistant container with a resistant inner liner.
	AA, std 25pmol 10/PK, Part Number 5061-3333	P406 - Store in corrosive resistant container with a resistant inner liner.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	P406 - Store in corrosive resistant container with a resistant inner liner.
	td 1nmol 10/PK, Part Number 5061-3330	P406 - Store in corrosive resistant container with a resistant inner liner.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	P406 - Store in corrosive resistant container with a resistant inner liner.
<b>Disposal</b>	: <input checked="" type="checkbox"/> Sarcosine	Not applicable.
	L-Tryptophan	Not applicable.
	L-Norvaline	Not applicable.
	L-Glutamine	Not applicable.
	L-Asparagine	Not applicable.
	L-4-Hydroxyproline	Not applicable.
	Dithiodipropionic, Part Number 5062-2479	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not applicable.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not applicable.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not applicable.
	td 1nmol 10/PK, Part Number 5061-3330	Not applicable.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not applicable.
<b>Supplemental label elements</b>		
<b>Additional warning phrases</b>	: <input checked="" type="checkbox"/> Sarcosine	Not applicable.
	L-Tryptophan	Not applicable.
	L-Norvaline	Not applicable.
	L-Glutamine	Not applicable.
	L-Asparagine	Not applicable.
	L-4-Hydroxyproline	Not applicable.
	Dithiodipropionic, Part Number 5062-2479	Not applicable.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not applicable.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not applicable.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not applicable.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not applicable.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not applicable.

## Section 2. Hazard(s) identification

td 1nmol 10/PK, Part Number 5061-3330	Not applicable.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not applicable.

### Other hazards which do not result in classification

<input checked="" type="checkbox"/> Sarcosine	May form explosible dust-air mixture if dispersed.
L-Tryptophan	May form explosible dust-air mixture if dispersed.
L-Norvaline	May form explosible dust-air mixture if dispersed.
L-Glutamine	May form explosible dust-air mixture if dispersed.
L-Asparagine	May form explosible dust-air mixture if dispersed.
L-4-Hydroxyproline	May form explosible dust-air mixture if dispersed.
Dithiodipropionic, Part Number 5062-2479	May form explosible dust-air mixture if dispersed.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	None known.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Causes digestive tract burns.
AA, std 10pmol 10/PK, Part Number 5061-3334	None known.
AA, std 25pmol 10/PK, Part Number 5061-3333	None known.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	None known.
td 1nmol 10/PK, Part Number 5061-3330	None known.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	None known.

## Section 3. Composition and ingredient information

### Substance/mixture

<input checked="" type="checkbox"/> Sarcosine	Substance
L-Tryptophan	Substance
L-Norvaline	Substance
L-Glutamine	Substance
L-Asparagine	Substance
L-4-Hydroxyproline	Substance
Dithiodipropionic, Part Number 5062-2479	Substance
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Mixture
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Mixture
AA, std 10pmol 10/PK, Part Number 5061-3334	Mixture
AA, std 25pmol 10/PK, Part Number 5061-3333	Mixture
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Mixture
td 1nmol 10/PK, Part Number 5061-3330	Mixture
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Mixture



## Section 3. Composition and ingredient information

### CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
<b>Sarcosine</b> Sarcosine	100	107-97-1
<b>L-Tryptophan</b> L-Tryptophan	100	73-22-3
<b>L-Norvaline</b> Norvaline	100	6600-40-4
<b>L-Glutamine</b> Levoglutamide	100	56-85-9
<b>L-Asparagine</b> Asparagine	100	70-47-3
<b>L-4-Hydroxyproline</b> L-4-Hydroxyproline	100	51-35-4
<b>Dithiodipropionic, Part Number 5062-2479</b> 3,3'-dithiobispropionic acid	100	1119-62-6
<b>FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</b> Acetonitrile	≥90	75-05-8
<b>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335</b> 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

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

<b>Eye contact</b>	: <b>Sarcosine</b>	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	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	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	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	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get

## Section 4. First aid measures

L-4-Hydroxyproline	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. 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.
FMOOC 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.
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.
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.
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, standard 100PMOL 10/PK, Part Number 5061-3332	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.
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 to rinse for at least 10 minutes. Get medical attention if irritation occurs.

### Inhalation

: Sarcosine	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	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	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-Glutamine	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	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-4-Hydroxyproline	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.
FMOOC 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.
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,

## Section 4. First aid measures

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

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.

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 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.

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.

## Section 4. First aid measures

<b>Skin contact</b>	: Sarcosine	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	L-Tryptophan	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	L-Norvaline	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	L-Glutamine	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	L-Asparagine	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	L-4-Hydroxyproline	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.
	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.
	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.
	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.
	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, 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.
	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.

## Section 4. First aid measures

### Ingestion

: Sarcosine

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-Tryptophan

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

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

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

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

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.

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.

## Section 4. First aid measures

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

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.

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

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.

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, 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.

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

## Section 4. First aid measures

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

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.

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.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

##### Eye contact

: Sarcosine

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

L-Tryptophan

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

L-Norvaline

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

L-Glutamine

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

L-Asparagine

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation



## Section 4. First aid measures

	L-4-Hydroxyproline	of the eyes. 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.
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Causes serious eye irritation.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Causes serious eye damage.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.
<b>Inhalation</b>	: Sarcosine	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	L-Tryptophan	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	L-Norvaline	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	L-Glutamine	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	L-Asparagine	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
	L-4-Hydroxyproline	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.
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Harmful if inhaled.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No known significant effects or critical hazards.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.

## Section 4. First aid measures

<b>Skin contact</b>	:	Sarcosine	No known significant effects or critical hazards.
		L-Tryptophan	No known significant effects or critical hazards.
		L-Norvaline	No known significant effects or critical hazards.
		L-Glutamine	No known significant effects or critical hazards.
		L-Asparagine	No known significant effects or critical hazards.
		L-4-Hydroxyproline	No known significant effects or critical hazards.
		Dithiodipropionic, Part Number 5062-2479	Causes skin irritation.
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Harmful in contact with skin.
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Causes severe burns. May cause an allergic skin reaction.
		AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
		AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.		
<b>Ingestion</b>	:	Sarcosine	No known significant effects or critical hazards.
		L-Tryptophan	No known significant effects or critical hazards.
		L-Norvaline	No known significant effects or critical hazards.
		L-Glutamine	No known significant effects or critical hazards.
		L-Asparagine	No known significant effects or critical hazards.
		L-4-Hydroxyproline	No known significant effects or critical hazards.
		Dithiodipropionic, Part Number 5062-2479	No known significant effects or critical hazards.
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Harmful if swallowed.
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Harmful if swallowed. Corrosive to the digestive tract. Causes burns.
		AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
		AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.		
<b><u>Over-exposure signs/symptoms</u></b>			
<b>Eye contact</b>	:	Sarcosine	Adverse symptoms may include the following: irritation redness
		L-Tryptophan	Adverse symptoms may include the following: irritation redness
		L-Norvaline	Adverse symptoms may include the following: irritation redness

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

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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

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

No specific data.

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

No specific data.

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

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.

### Skin contact

: Sarcosine  
L-Tryptophan  
L-Norvaline  
L-Glutamine  
L-Asparagine  
L-4-Hydroxyproline  
Dithiodipropionic, Part Number 5062-2479

No specific data.  
No specific data.  
No specific data.  
No specific data.  
No specific data.  
No specific data.  
No specific data.

Adverse symptoms may include the following:

irritation  
redness

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

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

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

No specific data.

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

No specific data.

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

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.

### Ingestion

: Sarcosine  
L-Tryptophan  
L-Norvaline  
L-Glutamine  
L-Asparagine  
L-4-Hydroxyproline  
Dithiodipropionic, Part Number 5062-2479  
Fmoc reagent 10 ampoules 1ml ea for AAA, Part

No specific data.  
No specific data.  
No specific data.  
No specific data.  
No specific data.  
No specific data.  
No specific data.  
No specific data.

## Section 4. First aid measures

Number 5061-3337 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
AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.

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

<b>Notes to physician</b>	:	<p><input checked="" type="checkbox"/> Sarcosine</p> <p>L-Tryptophan</p> <p>L-Norvaline</p> <p>L-Glutamine</p> <p>L-Asparagine</p> <p>L-4-Hydroxyproline</p> <p>Dithiodipropionic, Part Number 5062-2479</p> <p>FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</p> <p>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335</p> <p>AA, std 10pmol 10/PK, Part Number 5061-3334</p> <p>AA, std 25pmol 10/PK, Part Number 5061-3333</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</p> <p>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.</p> <p>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.</p> <p>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</p> <p>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</p>
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## Section 4. First aid measures

	AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.
<b>Specific treatments</b>	: <input checked="" type="checkbox"/> Sarcosine	No specific treatment.
	L-Tryptophan	No specific treatment.
	L-Norvaline	No specific treatment.
	L-Glutamine	No specific treatment.
	L-Asparagine	No specific treatment.
	L-4-Hydroxyproline	No specific treatment.
	Dithiodipropionic, Part Number 5062-2479	No specific treatment.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No specific treatment.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No specific treatment.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No specific treatment.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No specific treatment.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.
<b>Protection of first-aiders</b>	: <input checked="" type="checkbox"/> Sarcosine	No action shall be taken involving any personal risk or without suitable training.
	L-Tryptophan	No action shall be taken involving any personal risk or without suitable training.
	L-Norvaline	No action shall be taken involving any personal risk or without suitable training.
	L-Glutamine	No action shall be taken involving any personal risk or without suitable training.
	L-Asparagine	No action shall be taken involving any personal risk or without suitable training.
	L-4-Hydroxyproline	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.
	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.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number	No action shall be taken involving any personal risk or without suitable training. If it is suspected that

## Section 4. First aid measures


5061-3335	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.
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.
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, 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.
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.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

#### Suitable extinguishing media

:  Sarcosine	Use dry chemical powder.
L-Tryptophan	Use dry chemical powder.
L-Norvaline	Use dry chemical powder.
L-Glutamine	Use dry chemical powder.
L-Asparagine	Use dry chemical powder.
L-4-Hydroxyproline	Use dry chemical powder.
Dithiodipropionic, Part Number 5062-2479	Use dry chemical powder.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	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.
AA, std 25pmol 10/PK, Part Number 5061-3333	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.
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.

## Section 5. Firefighting measures

<b>Unsuitable extinguishing media</b>	: <input checked="" type="checkbox"/> Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 AA, std 10pmol 10/PK, Part Number 5061-3334 AA, std 25pmol 10/PK, Part Number 5061-3333 AA, standard 100PMOL 10/PK, Part Number 5061-3332 td 1nmol 10/PK, Part Number 5061-3330 AA, standard 250PMOL 10/PK, Part Number 5061-3331	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. Do not use water jet. None known. None known. None known. None known. None known. None known. None known.
<b>Specific hazards arising from the chemical</b>	: <input checked="" type="checkbox"/> Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337  OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335  AA, std 10pmol 10/PK, Part Number 5061-3334 AA, std 25pmol 10/PK, Part Number 5061-3333 AA, standard 100PMOL 10/PK, Part Number 5061-3332 td 1nmol 10/PK, Part Number 5061-3330 AA, standard 250PMOL 10/PK, Part Number	May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. 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. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.




## Section 5. Firefighting measures

	5061-3331	
<b>Hazardous thermal decomposition products</b>	: Sarcosine	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	L-Tryptophan	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	L-Norvaline	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	L-Glutamine	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	L-Asparagine	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	L-4-Hydroxyproline	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
	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
	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.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
	td 1nmol 10/PK, Part Number 5061-3330	No specific data.
	AA, standard 250PMOL 10/PK, Part Number	No specific data.

## Section 5. Firefighting measures

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### Special protective actions for fire-fighters

:  Sarcosine	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	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	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	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	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	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.
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.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	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.
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, standard 100PMOL	Promptly isolate the scene by removing all persons

## Section 5. Firefighting measures

	10/PK, Part Number 5061-3332	from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	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.
<b>Special protective equipment for fire-fighters</b>	:  Sarcosine	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	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	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	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	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	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.
	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.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	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.
	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, 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.
	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.

## Section 5. Firefighting measures

	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.
<b>Hazchem code</b>	: Sarcosine	Not available.
	L-Tryptophan	Not available.
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	•2YE
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	2R
	AA, std 25pmol 10/PK, Part Number 5061-3333	2R
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	2R
	td 1nmol 10/PK, Part Number 5061-3330	2R
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	2R

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: Sarcosine	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	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-Norvaline	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	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.

## Section 6. Accidental release measures

L-Asparagine	<p>No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.</p> <p>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.</p>
L-4-Hydroxyproline	<p>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.</p>
Dithiodipropionic, Part Number 5062-2479	<p>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.</p>
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	<p>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.</p>
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	<p>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.</p>
AA, std 10pmol 10/PK, Part Number 5061-3334	<p>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.</p>
AA, std 25pmol 10/PK, Part Number 5061-3333	<p>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.</p>
AA, standard 100PMOL	<p>No action shall be taken involving any personal risk</p>

## Section 6. Accidental release measures

10/PK, Part Number  
5061-3332

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.

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.

**For emergency responders :**  Sarcosine

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

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

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

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

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-4-Hydroxyproline

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".

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".

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".

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".

## Section 6. Accidental release measures

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, 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".
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".

### Environmental precautions : Sarcosine

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

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

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

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-Asparagine

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

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).

### 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).

### 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.

## Section 6. Accidental release measures

AA, std 10pmol 10/PK, Part Number 5061-3334	Collect spillage. 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, 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).
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).

### Methods and material for containment and cleaning up

#### Methods for cleaning up

Sarcosine	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	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	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	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	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	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



## Section 6. Accidental release measures

FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	a licensed waste disposal contractor. 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.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	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.
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 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, 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.
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.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

:  Sarcosine

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

Put on appropriate personal protective equipment

## Section 7. Handling and storage

	(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	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-Glutamine	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	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	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

## Section 7. Handling and storage

Dithiodipropionic, Part  
Number 5062-2479

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.

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 earthing and bonding containers and equipment before transferring material. 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.

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

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

## Section 7. Handling and storage

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

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.

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.

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

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.

### Advice on general occupational hygiene

: Sarcosine

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

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

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

Eating, drinking and smoking should be prohibited in

## Section 7. Handling and storage

	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	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-4-Hydroxyproline	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.
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 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.
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.
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, 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.
td 1nmol 10/PK, Part	Eating, drinking and smoking should be prohibited in

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Number 5061-3330

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.

**Conditions for safe storage, including any incompatibilities** : Sarcosine

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. See Section 10 for incompatible materials before handling or use.

L-Tryptophan

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. See Section 10 for incompatible materials before handling or use.

L-Norvaline

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. See Section 10 for incompatible materials before handling or use.

L-Glutamine

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

## Section 7. Handling and storage

L-Asparagine

containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. 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. See Section 10 for incompatible materials before handling or use.

L-4-Hydroxyproline

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. See Section 10 for incompatible materials before handling or use.

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. See Section 10 for incompatible materials before handling or use.

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. See Section 10 for incompatible materials before handling or use.

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

## Section 7. Handling and storage

AA, std 10pmol 10/PK, Part Number 5061-3334	<p>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. See Section 10 for incompatible materials before handling or use.</p>
	<p>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 away from metals. 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. See Section 10 for incompatible materials before handling or use.</p>
AA, std 25pmol 10/PK, Part Number 5061-3333	<p>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 away from metals. 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. See Section 10 for incompatible materials before handling or use.</p>
AA, standard 100PMOL 10/PK, Part Number 5061-3332	<p>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 away from metals. 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. See Section 10 for incompatible materials before handling or use.</p>
td 1nmol 10/PK, Part Number 5061-3330	<p>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 away from metals. 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. See Section 10 for incompatible materials before handling or use.</p>
AA, standard 250PMOL 10/PK, Part Number 5061-3331	<p>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</p>



## Section 7. Handling and storage

drink. Store in corrosive resistant container with a resistant inner liner. Separate from alkalis. Keep away from metals. 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. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls and personal protection

### Control parameters

### Occupational exposure limits

Ingredient name	Exposure limits
<b>F</b> MOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	<b>Safe Work Australia (Australia, 1/2014). Absorbed through skin.</b> STEL: 101 mg/m <sup>3</sup> 15 minutes. STEL: 60 ppm 15 minutes. TWA: 67 mg/m <sup>3</sup> 8 hours. TWA: 40 ppm 8 hours.
<b>O</b> PA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide	<b>Safe Work Australia (Australia, 1/2014).</b> TWA: 2 mg/m <sup>3</sup> 8 hours.
boric acid	<b>ACGIH TLV (United States, 3/2017).</b> TWA: 2 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction STEL: 6 mg/m <sup>3</sup> 15 minutes. Form: Inhalable fraction
Methanol	<b>Safe Work Australia (Australia, 1/2014). Absorbed through skin.</b> STEL: 328 mg/m <sup>3</sup> 15 minutes. STEL: 250 ppm 15 minutes. TWA: 262 mg/m <sup>3</sup> 8 hours. TWA: 200 ppm 8 hours.
Potassium thiocyanate	<b>Safe Work Australia (Australia, 1/2014). Absorbed through skin.</b> TWA: 5 mg/m <sup>3</sup> , (as CN) 8 hours.

### Appropriate engineering controls

: **E** Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### 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

: **W**ash 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.
- 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.
- 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

<b>Physical state</b>	: Sarcosine	Solid. [Powder. Deliquescent solid.]
	L-Tryptophan	Solid. [Crystalline powder.]
	L-Norvaline	Solid. [Crystalline powder.]
	L-Glutamine	Solid. [Needles.]
	L-Asparagine	Solid. [Crystals.]
	L-4-Hydroxyproline	Solid. [Crystals.]
	Dithiodipropionic, Part Number 5062-2479	Solid. [Powder.]
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Liquid. [Clear.]
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Liquid.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Liquid.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Liquid.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Liquid.
	td 1nmol 10/PK, Part Number 5061-3330	Liquid.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Liquid.
<b>Colour</b>	: Sarcosine	Not available.
	L-Tryptophan	White to yellowish.
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	White.
	Dithiodipropionic, Part Number 5062-2479	White.

## Section 9. Physical and chemical properties

	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Colourless.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Yellow. [Light]
	AA, std 10pmol 10/PK, Part Number 5061-3334	Colourless.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Colourless.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Colourless.
	td 1nmol 10/PK, Part Number 5061-3330	Colourless.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Colourless.
<b>Odour</b>	: <input checked="" type="checkbox"/> Sarcosine	Not available.
	L-Tryptophan	Odourless.
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	Odourless.
	Dithiodipropionic, Part Number 5062-2479	Unpleasant. [Strong]
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Ethereal. [Slight]
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Slight
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
<b>Odour threshold</b>	: <input checked="" type="checkbox"/> Sarcosine	Not available.
	L-Tryptophan	Not available.
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	70 ppm
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, standard 100PMOL	Not available.

## Section 9. Physical and chemical properties

	10/PK, Part Number 5061-3332	
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
<b>pH</b>	: <input checked="" type="checkbox"/> Sarcosine	Not available.
	L-Tryptophan	5.5 to 7 [Conc. (% w/w): 1%]
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not available.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	10.4
	AA, std 10pmol 10/PK, Part Number 5061-3334	1.5
	AA, std 25pmol 10/PK, Part Number 5061-3333	1.5
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	1.5
	td 1nmol 10/PK, Part Number 5061-3330	1.5
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	1.5
<b>Melting point</b>	: <input checked="" type="checkbox"/> Sarcosine	208 to 212°C (406.4 to 413.6°F)
	L-Tryptophan	278.3 to 279.3°C (532.9 to 534.7°F)
	L-Norvaline	300°C (572°F)
	L-Glutamine	Decomposition temperature: 185°C (365°F)
	L-Asparagine	234 to 235°C (453.2 to 455°F)
	L-4-Hydroxyproline	274°C (525.2°F)
	Dithiodipropionic, Part Number 5062-2479	155 to 158°C (311 to 316.4°F)
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	-45°C (-49°F)
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	0°C (32°F)
	AA, std 25pmol 10/PK, Part Number 5061-3333	0°C (32°F)
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	0°C (32°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)

## Section 9. Physical and chemical properties

<b>Boiling point</b>	: Sarcosine	Not available.	
	L-Tryptophan	Not available.	
	L-Norvaline	Not available.	
	L-Glutamine	Not available.	
	L-Asparagine	Not available.	
	L-4-Hydroxyproline	Not available.	
	Dithiodipropionic, Part Number 5062-2479	Not available.	
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	81.6°C (178.9°F)	
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.	
	AA, std 10pmol 10/PK, Part Number 5061-3334	100°C (212°F)	
	AA, std 25pmol 10/PK, Part Number 5061-3333	100°C (212°F)	
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	100°C (212°F)	
	td 1nmol 10/PK, Part Number 5061-3330	100°C (212°F)	
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	100°C (212°F)	
	<b>Flash point</b>	: Sarcosine	Not available.
		L-Tryptophan	Not available.
L-Norvaline		Not available.	
L-Glutamine		Not available.	
L-Asparagine		Not available.	
L-4-Hydroxyproline		Not available.	
Dithiodipropionic, Part Number 5062-2479		Not available.	
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337		Closed cup: 2°C (35.6°F)	
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335		Not available.	
AA, std 10pmol 10/PK, Part Number 5061-3334		Not available.	
AA, std 25pmol 10/PK, Part Number 5061-3333		Not available.	
AA, standard 100PMOL 10/PK, Part Number 5061-3332		Not available.	
td 1nmol 10/PK, Part Number 5061-3330		Not available.	
AA, standard 250PMOL 10/PK, Part Number 5061-3331		Not available.	
<b>Evaporation rate</b>		: Sarcosine	Not available.
		L-Tryptophan	Not available.
	L-Norvaline	Not available.	
	L-Glutamine	Not available.	
	L-Asparagine	Not available.	
	L-4-Hydroxyproline	Not available.	
	Dithiodipropionic, Part Number 5062-2479	Not available.	
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	5.79 (butyl acetate = 1)	

## Section 9. Physical and chemical properties

	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	<1 (butyl acetate = 1)
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
<b>Flammability (solid, gas)</b>	: <input checked="" type="checkbox"/> Sarcosine	Not available.
	L-Tryptophan	Not available.
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not applicable.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not applicable.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not applicable.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not applicable.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not applicable.
	td 1nmol 10/PK, Part Number 5061-3330	Not applicable.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: <input checked="" type="checkbox"/> Sarcosine	Not available.
	L-Tryptophan	Not available.
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Lower: 4.4%
		Upper: 16%
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.

## Section 9. Physical and chemical properties

	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
<b>Vapour pressure</b>	: <input checked="" type="checkbox"/> Sarcosine	Not available.
	L-Tryptophan	0 kPa (0 mm Hg) [room temperature]
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	0.000000064 kPa (0.000000048 mm Hg) [room temperature]
	L-4-Hydroxyproline	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not available.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
<b>Vapour density</b>	: <input checked="" type="checkbox"/> Sarcosine	Not available.
	L-Tryptophan	Not available.
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	4.5 [Air = 1]
	Dithiodipropionic, Part Number 5062-2479	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not available.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.

## Section 9. Physical and chemical properties

<b>Relative density</b>	:	<input checked="" type="checkbox"/> Sarcosine	Not available.		
		L-Tryptophan	1.34		
		L-Norvaline	Not available.		
		L-Glutamine	Not available.		
		L-Asparagine	Not available.		
		L-4-Hydroxyproline	Not available.		
		Dithiodipropionic, Part Number 5062-2479	Not available.		
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	0.78		
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	1.045		
		AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.		
		AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.		
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.		
		td 1nmol 10/PK, Part Number 5061-3330	Not available.		
		AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.		
		<b>Solubility</b>	:	<input checked="" type="checkbox"/> Sarcosine	Soluble in the following materials: cold water and hot water.
				L-Tryptophan	Soluble in the following materials: cold water and hot water.
L-Norvaline	Insoluble in the following materials: diethyl ether. Soluble in the following materials: cold water and hot water.				
L-Glutamine	Easily soluble in the following materials: cold water and hot water.				
L-Asparagine	Very slightly soluble in the following materials: methanol and diethyl ether.				
L-4-Hydroxyproline	Soluble in the following materials: cold water and hot water.				
Dithiodipropionic, Part Number 5062-2479	Soluble in the following materials: cold water and hot water.				
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Soluble in the following materials: cold water and hot water.				
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Easily soluble in the following materials: cold water and hot water.				
AA, std 10pmol 10/PK, Part Number 5061-3334	Easily soluble in the following materials: cold water and hot water.				
AA, std 25pmol 10/PK, Part Number 5061-3333	Easily soluble in the following materials: cold water and hot water.				
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Easily soluble in the following materials: cold water and hot water.				
td 1nmol 10/PK, Part Number 5061-3330	Easily soluble in the following materials: cold water and hot water.				
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Easily soluble in the following materials: cold water and hot water.				



## Section 9. Physical and chemical properties

<b>Partition coefficient: n-octanol/water</b>	<b>:</b>	Sarcosine	-2.78	
		L-Tryptophan	-1.06	
		L-Norvaline	-2.11	
		L-Glutamine	-3.64	
		L-Asparagine	-3.82	
		L-4-Hydroxyproline	-3.17	
		Dithiodipropionic, Part Number 5062-2479	Not available.	
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	<1	
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.	
		AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.	
		AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.	
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.	
		td 1nmol 10/PK, Part Number 5061-3330	Not available.	
		AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.	
	<b>Auto-ignition temperature</b>	<b>:</b>	Sarcosine	Not available.
			L-Tryptophan	>400°C (>752°F)
			L-Norvaline	Not available.
			L-Glutamine	Not available.
			L-Asparagine	Not available.
			L-4-Hydroxyproline	Not available.
		Dithiodipropionic, Part Number 5062-2479	Not available.	
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	524°C (975.2°F)	
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.	
		AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.	
		AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.	
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.	
		td 1nmol 10/PK, Part Number 5061-3330	Not available.	
		AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.	
<b>Decomposition temperature</b>		<b>:</b>	Sarcosine	212°C (413.6°F)
			L-Tryptophan	289°C (552.2°F)
			L-Norvaline	Not available.
			L-Glutamine	185°C (365°F)
			L-Asparagine	Not available.
			L-4-Hydroxyproline	275°C (527°F)
		Dithiodipropionic, Part Number 5062-2479	Not available.	
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not available.	

## Section 9. Physical and chemical properties

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

## Section 10. Stability and reactivity

<b>Reactivity</b>	: Sarcosine	No specific test data related to reactivity available for this product or its ingredients.
	L-Tryptophan	No specific test data related to reactivity available for this product or its ingredients.
	L-Norvaline	No specific test data related to reactivity available for this product or its ingredients.
	L-Glutamine	No specific test data related to reactivity available for this product or its ingredients.
	L-Asparagine	No specific test data related to reactivity available for this product or its ingredients.
	L-4-Hydroxyproline	No specific test data related to reactivity available for this product or its ingredients.
	Dithiodipropionic, Part Number 5062-2479	No specific test data related to reactivity available for this product or its ingredients.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No specific test data related to reactivity available for this product or its ingredients.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No specific test data related to reactivity available for this product or its ingredients.

## Section 10. Stability and reactivity

AA, std 10pmol 10/PK, Part Number 5061-3334	No specific test data related to reactivity available for this product or its ingredients.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific test data related to reactivity available for this product or its ingredients.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific test data related to reactivity available for this product or its ingredients.
td 1nmol 10/PK, Part Number 5061-3330	No specific test data related to reactivity available for this product or its ingredients.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific test data related to reactivity available for this product or its ingredients.

### Chemical stability

: <input checked="" type="checkbox"/> Sarcosine	The product is stable.
L-Tryptophan	The product is stable.
L-Norvaline	The product is stable.
L-Glutamine	The product is stable.
L-Asparagine	The product is stable.
L-4-Hydroxyproline	The product is stable.
Dithiodipropionic, Part Number 5062-2479	The product is stable.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	The product is stable.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	The product is stable.
AA, std 10pmol 10/PK, Part Number 5061-3334	The product is stable.
AA, std 25pmol 10/PK, Part Number 5061-3333	The product is stable.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	The product is stable.
td 1nmol 10/PK, Part Number 5061-3330	The product is stable.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	The product is stable.

### Possibility of hazardous reactions

: <input checked="" type="checkbox"/> Sarcosine	Under normal conditions of storage and use, hazardous reactions will not occur.
L-Tryptophan	Under normal conditions of storage and use, hazardous reactions will not occur.
L-Norvaline	Under normal conditions of storage and use, hazardous reactions will not occur.
L-Glutamine	Under normal conditions of storage and use, hazardous reactions will not occur.
L-Asparagine	Under normal conditions of storage and use, hazardous reactions will not occur.
L-4-Hydroxyproline	Under normal conditions of storage and use, hazardous reactions will not occur.
Dithiodipropionic, Part Number 5062-2479	Under normal conditions of storage and use, hazardous reactions will not occur.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Under normal conditions of storage and use, hazardous reactions will not occur.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Under normal conditions of storage and use, hazardous reactions will not occur.
AA, std 10pmol 10/PK, Part Number 5061-3334	Under normal conditions of storage and use, hazardous reactions will not occur.
AA, std 25pmol 10/PK, Part	Under normal conditions of storage and use,

## Section 10. Stability and reactivity

Number 5061-3333 AA, standard 100PMOL 10/PK, Part Number 5061-3332	hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
td 1nmol 10/PK, Part Number 5061-3330 AA, standard 250PMOL 10/PK, Part Number 5061-3331	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	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-Tryptophan	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-Norvaline	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-Glutamine	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	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	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.
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.

## Section 10. Stability and reactivity

OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No specific data.
AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.

### Incompatible materials

Sarcosine	Reactive or incompatible with the following materials: oxidizing materials
L-Tryptophan	Reactive or incompatible with the following materials: oxidizing materials
L-Norvaline	Reactive or incompatible with the following materials: oxidizing materials
L-Glutamine	Reactive or incompatible with the following materials: oxidizing materials
L-Asparagine	Reactive or incompatible with the following materials: oxidizing materials
L-4-Hydroxyproline	Reactive or incompatible with the following materials: oxidizing materials
Dithiodipropionic, Part Number 5062-2479	Reactive or incompatible with the following materials: oxidizing materials
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Reactive or incompatible with the following materials: oxidizing materials
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	May react or be incompatible with oxidising materials.
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
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, 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
td 1nmol 10/PK, Part Number 5061-3330	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	Attacks many metals producing extremely flammable

## Section 10. Stability and reactivity

10/PK, Part Number  
5061-3331

hydrogen gas which can form explosive mixtures with air.

Reactive or incompatible with the following materials:  
alkalis  
metals

### Hazardous decomposition products

:  Sarcosine

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

L-Tryptophan

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

L-Norvaline

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

L-Glutamine

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

L-Asparagine

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

L-4-Hydroxyproline

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.

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.

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.

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

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

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.

## Section 11. Toxicological information

### [Information on toxicological effects](#)

#### [Acute toxicity](#)

Product/ingredient name	Result	Species	Dose	Exposure
 -Tryptophan L-Tryptophan	LD50 Oral	Rat	>16 g/kg	-
<b>L-Glutamine</b> Levoglutamide	LD50 Oral	Rat	7500 mg/kg	-
<b>Fmoc reagent 10 ampoules 1ml ea for AAA,</b>				

## Section 11. Toxicological information

<b>Part Number 5061-3337</b> Acetonitrile	LC50 Inhalation Vapour LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
<b>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335</b> Potassium hydroxide	LD50 Oral	Rat	273 mg/kg	-
3-Mercaptopropionic acid	LC50 Inhalation Dusts and mists LD50 Oral	Rat Rat	1818 mg/m <sup>3</sup> 96 mg/kg	4 hours -
Methanol	LC50 Inhalation Vapour LC50 Inhalation Vapour LD50 Dermal	Rat Rat Rabbit	145000 ppm 64000 ppm 15800 mg/kg	1 hours 4 hours -
Potassium thiocyanate	LD50 Oral LD50 Oral	Rat Rat	5600 mg/kg 854 mg/kg	- -

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>F/MOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</b> Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
<b>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335</b> Potassium hydroxide	Eyes - Moderate irritant	Rabbit	-	24 hours 1 milligram	-
	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	-

### Sensitisation

Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

## Section 11. Toxicological information

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

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

<b>Information on likely routes of exposure</b>	<input checked="" type="checkbox"/> Sarcosine <input type="checkbox"/> L-Tryptophan <input type="checkbox"/> L-Norvaline <input type="checkbox"/> L-Glutamine <input type="checkbox"/> L-Asparagine <input type="checkbox"/> L-4-Hydroxyproline <input type="checkbox"/> Dithiodipropionic, Part Number 5062-2479 <input type="checkbox"/> FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 <input type="checkbox"/> OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 <input type="checkbox"/> AA, std 10pmol 10/PK, Part Number 5061-3334 <input type="checkbox"/> AA, std 25pmol 10/PK, Part Number 5061-3333 <input type="checkbox"/> AA, standard 100PMOL 10/PK, Part Number 5061-3332 <input type="checkbox"/> td 1nmol 10/PK, Part Number 5061-3330 <input type="checkbox"/> AA, standard 250PMOL 10/PK, Part Number 5061-3331	<p>Not available.</p> <p>Not available.</p> <p>Not available.</p> <p>Not available.</p> <p>Not available.</p> <p>Not available.</p> <p>Routes of entry anticipated: Oral, Dermal, Inhalation.</p> <p>Routes of entry anticipated: Oral, Dermal, Inhalation.</p> <p>Routes of entry anticipated: Oral, Dermal, Inhalation.</p> <p>Not available.</p> <p>Not available.</p> <p>Not available.</p> <p>Not available.</p> <p>Not available.</p> <p>Not available.</p>
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### Potential acute health effects

<b>Eye contact</b>	<input checked="" type="checkbox"/> Sarcosine  <input type="checkbox"/> L-Tryptophan  <input type="checkbox"/> L-Norvaline  <input type="checkbox"/> L-Glutamine  <input type="checkbox"/> L-Asparagine  <input type="checkbox"/> L-4-Hydroxyproline	<p>Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.</p> <p>Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.</p> <p>Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.</p> <p>Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.</p> <p>Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.</p> <p>Exposure to airborne concentrations above statutory</p>
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## Section 11. Toxicological information

or recommended exposure limits may cause irritation of the eyes.

Causes serious eye irritation.

Dithiodipropionic, Part Number 5062-2479

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

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

Causes serious eye damage.

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

No known significant effects or critical hazards.

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

No known significant effects or critical hazards.

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

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.

No known significant effects or critical hazards.

### Inhalation

:  Sarcosine

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

L-Tryptophan

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

L-Norvaline

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

L-Glutamine

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

L-Asparagine

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

L-4-Hydroxyproline

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

May cause respiratory irritation.

Dithiodipropionic, Part Number 5062-2479

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

Harmful if inhaled.

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

No known significant effects or critical hazards.

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

No known significant effects or critical hazards.

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

No known significant effects or critical hazards.

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

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.

## Section 11. Toxicological information

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

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	:	Sarcosine	Adverse symptoms may include the following: irritation redness
		L-Tryptophan	Adverse symptoms may include the following: irritation redness
		L-Norvaline	Adverse symptoms may include the following: irritation

## Section 11. Toxicological information

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

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	Number 5061-3337 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
	AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.
<b>Skin contact</b>	: <input checked="" type="checkbox"/> Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following:  irritation redness
	FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	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
	AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.
<b>Ingestion</b>	: <input checked="" type="checkbox"/> Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 FMOc reagent 10 ampoules 1ml ea for AAA, Part	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

## Section 11. Toxicological information

Number 5061-3337 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 No specific data.
AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.

### 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

<b>General</b>	: Sarcosine	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Tryptophan	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Norvaline	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Glutamine	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Asparagine	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-4-Hydroxyproline	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.
	FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	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.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.

## Section 11. Toxicological information

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

## Section 11. Toxicological information

	Number 5062-2479	
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No known significant effects or critical hazards.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	May damage the unborn child.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.
<b>Developmental effects</b>	: <input checked="" type="checkbox"/> <b>Sarcosine</b>	No known significant effects or critical hazards.
	L-Tryptophan	No known significant effects or critical hazards.
	L-Norvaline	No known significant effects or critical hazards.
	L-Glutamine	No known significant effects or critical hazards.
	L-Asparagine	No known significant effects or critical hazards.
	L-4-Hydroxyproline	No known significant effects or critical hazards.
	Dithiodipropionic, Part Number 5062-2479	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.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No known significant effects or critical hazards.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	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.
<b>Fertility effects</b>	: <input checked="" type="checkbox"/> <b>Sarcosine</b>	No known significant effects or critical hazards.
	L-Tryptophan	No known significant effects or critical hazards.
	L-Norvaline	No known significant effects or critical hazards.
	L-Glutamine	No known significant effects or critical hazards.
	L-Asparagine	No known significant effects or critical hazards.
	L-4-Hydroxyproline	No known significant effects or critical hazards.
	Dithiodipropionic, Part Number 5062-2479	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.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	May damage fertility.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.

## Section 11. Toxicological information

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

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
<b>FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</b> Oral Dermal Inhalation (vapours)	502.5 mg/kg 1105.5 mg/kg 11.06 mg/l
<b>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335</b> Oral Dermal Inhalation (vapours) Inhalation (dusts and mists)	1552.8 mg/kg 13200 mg/kg 150 mg/l 56.6 mg/l

### Other information

: Sarcosine	Not available.
L-Tryptophan	Not available.
L-Norvaline	Not available.
L-Glutamine	Not available.
L-Asparagine	Not available.
L-4-Hydroxyproline	Not available.
Dithiodipropionic, Part Number 5062-2479	Not available.
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Adverse symptoms may include the following: May cause headache, weakness, dizziness, shortness of breath, cyanosis, rapid heart beat, unconsciousness and possible death.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
td 1nmol 10/PK, Part Number 5061-3330	Not available.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.



## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
<b>Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</b> 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
<b>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335</b> Potassium hydroxide boric acid	Acute LC50 80 ppm Fresh water Acute LC50 45.5 mg/l Fresh water Acute LC50 133000 µg/l Fresh water	Fish - Gambusia affinis - Adult Crustaceans - Ceriodaphnia dubia Daphnia - Daphnia magna - Neonate	96 hours 48 hours 48 hours
3-Mercaptopropionic acid	Acute LC50 75 mg/l Marine water Chronic NOEC 6000 µg/l Fresh water Acute EC50 9 mg/l Fresh water	Fish - Pagrus major Daphnia - Daphnia magna Daphnia	96 hours 21 days 48 hours
Methanol	Acute LC50 15 mg/l Fresh water Acute LC50 2500000 µg/l Marine water Acute LC50 3289 mg/l Fresh water	Fish Crustaceans - Crangon crangon - Adult Daphnia - Daphnia magna - Neonate	96 hours 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 µg/l Fresh water Acute LC50 13.3 mg/l Fresh water Chronic NOEC 1100 µg/l Fresh water	Daphnia - Daphnia magna Fish - Oncorhynchus mykiss Daphnia - Daphnia pulex Fish - Salvelinus fontinalis Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	48 hours 96 hours 48 hours 96 hours 124 days

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>L-Tryptophan</b> L-Tryptophan	OECD 301B Ready Biodegradability - CO2 Evolution Test	77 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>L-Tryptophan</b> L-Tryptophan	-	-	Readily
<b>Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</b> Acetonitrile	-	-	Readily
<b>OPA reagent, 10 mg/ml, 6</b>			

## Section 12. Ecological information

ampoules, Part Number 5061-3335 boric acid	-	-	Not readily
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### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>Sarcosine</b>			
Sarcosine	-2.78	-	low
Sarcosine	-2.78	-	low
<b>L-Tryptophan</b>			
L-Tryptophan	-1.06	-	low
L-Tryptophan	-1.06	-	low
<b>L-Norvaline</b>			
Norvaline	-2.11	-	low
Norvaline	-2.11	-	low
<b>L-Glutamine</b>			
Levoglutamide	-3.64	-	low
Levoglutamide	-3.64	-	low
<b>L-Asparagine</b>			
Asparagine	-3.82	-	low
Asparagine	-3.82	-	low
<b>L-4-Hydroxyproline</b>			
L-4-Hydroxyproline	-3.17	-	low
L-4-Hydroxyproline	-3.17	-	low
<b>FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</b>			
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	<1	-	low
Acetonitrile	-0.34	3	low
<b>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335</b>			
boric acid	-1.09	-	low
3-Mercaptopropionic acid	-2.32	-	low
Methanol	-0.77	<10	low
Potassium thiocyanate	-2.52	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

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

### Additional information

**Remarks:** De minimis quantities

**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

6, 5

### Model Work Health and Safety Regulations - Scheduled Substances

Ingredient name	Schedule
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]

### 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.

### Inventory list

**Australia** : Not determined.  
**Canada** : Not determined.  
**China** : Not determined.  
**Europe** : All components are listed or exempted.

## Section 15. Regulatory information

<b>Japan</b>	: <b>Japan inventory (ENCS):</b> Not determined. <b>Japan inventory (ISHL):</b> Not determined.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: All components are listed or exempted.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: Not determined.
<b>Viet Nam</b>	: Not determined.

## Section 16. Any other relevant information

### History

**Date of issue/Date of revision** : 28/06/2018

**Date of previous issue** : 30/05/2016

**Version** : 4

### 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
<b>Dithiodipropionic, Part Number 5062-2479</b> Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335	Expert judgment Expert judgment Expert judgment
<b>FMO reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</b> 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
<b>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335</b> 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 Calculation method

**Section 16. Any other relevant information**

<b>AA, std 10pmol 10/PK, Part Number 5061-3334</b> Met. Corr. 1, H290	Expert judgment
<b>AA, std 25pmol 10/PK, Part Number 5061-3333</b> Met. Corr. 1, H290	Expert judgment
<b>AA, standard 100PMOL 10/PK, Part Number 5061-3332</b> Met. Corr. 1, H290	Expert judgment
<b>td 1nmol 10/PK, Part Number 5061-3330</b> Met. Corr. 1, H290	Expert judgment
<b>AA, standard 250PMOL 10/PK, Part Number 5061-3331</b> Met. Corr. 1, H290	Expert judgment

**References** : Not available.

✔ Indicates information that has changed from previously issued version.

**Notice to reader**

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