

SAFETY DATA SHEET



AdvanceBio Amino Acid reagent kit, Part Number 5190-9426

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

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

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

Identified uses	
Analytical chemistry.	
Sarcosine, Part Number 5062-2478	1 x 1 g
L-Tryptophan, Part Number 5062-2478	1 x 1 g
L-Norvaline, Part Number 5062-2478	1 x 1 g
L-Glutamine, Part Number 5062-2478	1 x 1 g
L-Asparagine, Part Number 5062-2478	1 x 1 g
L-4-Hydroxyproline, Part Number 5062-2478	1 x 1 g
Dithiodipropionic, Part Number 5062-2479	1 x 5 g
td 1nmol 10/PK, Part Number 5061-3330	10 x 1 ml
AA, standard 250PMOL 10/PK, Part Number 5061-3331	10 x 1 ml
AA, standard 100PMOL 10/PK, Part Number 5061-3332	10 x 1 ml
AA, std 25pmol 10/PK, Part Number 5061-3333	10 x 1 ml
AA, std 10pmol 10/PK, Part Number 5061-3334	10 x 1 ml
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	6 x 1 ml

AdvanceBio Amino Acid reagent kit, Part Number 5190-9426

SECTION 1: Identification of the substance/mixture and of the company/undertaking

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

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC@: +(44)-870-8200418

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

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

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

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

SECTION 2: Hazards identification

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Dithiodipropionic, Part Number 5062-2479

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

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

H290 CORROSIVE TO METALS - Category 1

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

H290 CORROSIVE TO METALS - Category 1

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

H290 CORROSIVE TO METALS - Category 1

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

H290 CORROSIVE TO METALS - Category 1

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

H290 CORROSIVE TO METALS - Category 1

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

H302 ACUTE TOXICITY (oral) - Category 4
 H314 SKIN CORROSION/IRRITATION - Category 1A
 H317 SKIN SENSITISATION - Category 1
 H411 LONG-TERM AQUATIC HAZARD - Category 2

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

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

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

H315 SKIN CORROSION/IRRITATION - Category 2
 H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



SECTION 2: Hazards identification

Signal word	:	Sarcosine, Part Number 5062-2478	No signal word.
		L-Tryptophan, Part Number 5062-2478	No signal word.
		L-Norvaline, Part Number 5062-2478	No signal word.
		L-Glutamine, Part Number 5062-2478	No signal word.
		L-Asparagine, Part Number 5062-2478	No signal word.
		L-4-Hydroxyproline, Part Number 5062-2478	No signal word.
		Dithiodipropionic, Part Number 5062-2479	Warning
		td 1nmol 10/PK, Part Number 5061-3330	Warning
		AA, standard 250PMOL 10/PK, Part Number 5061-3331	Warning
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	Warning
		AA, std 25pmol 10/PK, Part Number 5061-3333	Warning
		AA, std 10pmol 10/PK, Part Number 5061-3334	Warning
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Danger
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Danger
		Buffer, Borate 100ml/BT, Part Number 5061-3339	Warning
Hazard statements	:	Sarcosine, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Tryptophan, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Norvaline, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Glutamine, Part Number 5062-2478	No known significant effects or critical hazards.
		L-Asparagine, Part Number 5062-2478	No known significant effects or critical hazards.
		L-4-Hydroxyproline, Part Number 5062-2478	No known significant effects or critical hazards.
		Dithiodipropionic, Part Number 5062-2479	GHS07 - Causes skin irritation. May cause respiratory irritation. Causes serious eye irritation. May be corrosive to metals.
		td 1nmol 10/PK, Part Number 5061-3330	GHS05 - May be corrosive to metals.
		AA, standard 250PMOL 10/PK, Part Number 5061-3331	GHS05 - May be corrosive to metals.
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	GHS05 - May be corrosive to metals.
		AA, std 25pmol 10/PK,	GHS05 - May be corrosive to metals.

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Part Number 5061-3333	GHS05 - May be corrosive to metals.
AA, std 10pmol 10/PK, Part Number 5061-3334	GHS05 - GHS05 -
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Causes severe skin burns and eye damage. GHS07 - Harmful if swallowed. May cause an allergic skin reaction. GHS09 - Toxic to aquatic life with long lasting effects. GHS02 -
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Highly flammable liquid and vapour. GHS07 - Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation. GHS07 -
Buffer, Borate 100ml/BT, Part Number 5061-3339	Causes skin irritation. Causes serious eye irritation.

Precautionary statements

Prevention

: Sarcosine, Part Number 5062-2478	Not applicable.
L-Tryptophan, Part Number 5062-2478	Not applicable.
L-Norvaline, Part Number 5062-2478	Not applicable.
L-Glutamine, Part Number 5062-2478	Not applicable.
L-Asparagine, Part Number 5062-2478	Not applicable.
L-4-Hydroxyproline, Part Number 5062-2478	Not applicable.
Dithiodipropionic, Part Number 5062-2479	P280 - Wear protective gloves. Wear eye or face protection. P261 - Avoid breathing dust. P234 - Keep only in original container.
td 1nmol 10/PK, Part Number 5061-3330	P234 - Keep only in original container.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	P234 - Keep only in original container.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	P234 - Keep only in original container.
AA, std 25pmol 10/PK, Part Number 5061-3333	P234 - Keep only in original container.
AA, std 10pmol 10/PK, Part Number 5061-3334	P234 - Keep only in original container.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number	P273 - Avoid release to the environment. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.

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5061-3337

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.
 P280 - Wear protective gloves. Wear eye or face protection.
 P264 - Wash hands thoroughly after handling.

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

Response

: Sarcosine, Part Number 5062-2478
 L-Tryptophan, Part Number 5062-2478
 L-Norvaline, Part Number 5062-2478
 L-Glutamine, Part Number 5062-2478
 L-Asparagine, Part Number 5062-2478
 L-4-Hydroxyproline, Part Number 5062-2478
 Dithiodipropionic, Part Number 5062-2479

Not applicable.
 Not applicable.
 Not applicable.
 Not applicable.
 Not applicable.
 Not applicable.

td 1nmol 10/PK, Part Number 5061-3330
 AA, standard 250PMOL 10/PK, Part Number 5061-3331

P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

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

P390 - Absorb spillage to prevent material damage.

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

P390 - Absorb spillage to prevent material damage.

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

P390 - Absorb spillage to prevent material damage.

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

P304 + P340 + P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.
 P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.
 P303 + P361 + P353 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or physician.
 P305 + P310 - IF IN EYES: Immediately call a POISON CENTER or physician.

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

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

: Sarcosine, Part Number 5062-2478
 L-Tryptophan, Part Number 5062-2478
 L-Norvaline, Part Number 5062-2478
 L-Glutamine, Part

Not applicable.
 Not applicable.
 Not applicable.
 Not applicable.

SECTION 2: Hazards identification

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

Disposal

SECTION 2: Hazards identification

Hazardous ingredients	: OPA reagent, 10 mg/ml, - potassium hydroxide 6 ampoules, Part Number 5061-3335 Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Buffer, Borate 100ml/BT, Not applicable. Part Number 5061-3339	- 3-Mercaptopropionic acid - methanol - Phthalaldehyde - acetonitrile
Supplemental label elements	: Sarcosine, Part Number Not applicable. 5062-2478 L-Tryptophan, Part Not applicable. Number 5062-2478 L-Norvaline, Part Not applicable. Number 5062-2478 L-Glutamine, Part Not applicable. Number 5062-2478 L-Asparagine, Part Not applicable. Number 5062-2478 L-4-Hydroxyproline, Part Not applicable. Number 5062-2478 Dithiodipropionic, Part Not applicable. Number 5062-2479 td 1nmol 10/PK, Part Not applicable. Number 5061-3330 AA, standard 250PMOL Not applicable. 10/PK, Part Number 5061-3331 AA, standard 100PMOL Not applicable. 10/PK, Part Number 5061-3332 AA, std 25pmol 10/PK, Not applicable. Part Number 5061-3333 AA, std 10pmol 10/PK, Not applicable. Part Number 5061-3334 OPA reagent, 10 mg/ml, Contains isocyanates. May produce an allergic reaction. 6 ampoules, Part Number 5061-3335 Fmoc reagent 10 Not applicable. ampoules 1ml ea for AAA, Part Number 5061-3337 Buffer, Borate 100ml/BT, Not applicable. Part Number 5061-3339	
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Sarcosine, Part Number Not applicable. 5062-2478 L-Tryptophan, Part Not applicable. Number 5062-2478 L-Norvaline, Part Not applicable. Number 5062-2478 L-Glutamine, Part Not applicable. Number 5062-2478 L-Asparagine, Part Not applicable. Number 5062-2478 L-4-Hydroxyproline, Part Not applicable. Number 5062-2478 Dithiodipropionic, Part Not applicable. Number 5062-2479 td 1nmol 10/PK, Part Not applicable. Number 5061-3330	

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AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not applicable.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not applicable.
AA, std 25pmol 10/PK, Part Number 5061-3333	Not applicable.
AA, std 10pmol 10/PK, Part Number 5061-3334	Not applicable.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not applicable.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not applicable.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Not applicable.

Special packaging requirements

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

2.3 Other hazards

SECTION 2: Hazards identification

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

SECTION 3: Composition/information on ingredients

3.1 Substances	:	Sarcosine, Part Number 5062-2478	Mono-constituent substance
		L-Tryptophan, Part Number 5062-2478	Mono-constituent substance
		L-Norvaline, Part Number 5062-2478	Mono-constituent substance
		L-Glutamine, Part Number 5062-2478	Mono-constituent substance
		L-Asparagine, Part Number 5062-2478	Mono-constituent substance
		L-4-Hydroxyproline, Part Number 5062-2478	Mono-constituent substance
		Dithiodipropionic, Part Number 5062-2479	Mono-constituent substance
		td 1nmol 10/PK, Part Number 5061-3330	Mixture
		AA, standard 250PMOL 10/PK, Part Number 5061-3331	Mixture
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	Mixture
		AA, std 25pmol 10/PK, Part Number 5061-3333	Mixture
		AA, std 10pmol 10/PK, Part Number 5061-3334	Mixture
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Mixture

SECTION 3: Composition/information on ingredients

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

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Sarcosine, Part Number 5062-2478 Sarcosine	EC: 203-538-6 CAS: 107-97-1	100	Not classified.	[A]
L-Tryptophan, Part Number 5062-2478 L-Tryptophan	EC: 200-795-6 CAS: 73-22-3	100	Not classified.	[A]
L-Norvaline, Part Number 5062-2478 Norvaline	EC: 229-543-3 CAS: 6600-40-4	100	Not classified.	[A]
L-Glutamine, Part Number 5062-2478 Levoglutamide	EC: 200-292-1 CAS: 56-85-9	100	Not classified.	[A]
L-Asparagine, Part Number 5062-2478 Asparagine	EC: 200-735-9 CAS: 70-47-3	100	Not classified.	[A]
L-4-Hydroxyproline, Part Number 5062-2478 L-4-Hydroxyproline	EC: 200-091-9 CAS: 51-35-4	100	Not classified.	[A]
Dithiodipropionic, Part Number 5062-2479 3,3'-dithiobispropionic acid	EC: 214-284-0 CAS: 1119-62-6	100	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[A]
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide	EC: 215-181-3 CAS: 1310-58-3 Index: 019-002-00-8	≤10	Acute Tox. 4, H302 Skin Corr. 1A, H314	[1] [2]
boric acid	EC: 233-139-2 CAS: 10043-35-3 Index: 005-007-00-2	≤5	Repr. 1B, H360FD (Fertility and Unborn child)	[1]
3-Mercaptopropionic acid	EC: 203-537-0 CAS: 107-96-0	≤3	Met. Corr. 1, H290 Acute Tox. 3, H301 Acute Tox. 4, H332 Skin Corr. 1B, H314 Aquatic Chronic 2, H411	[1]
Methanol	EC: 200-659-6 CAS: 67-56-1 Index: 603-001-00-X	<3	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370	[1] [2]

SECTION 3: Composition/information on ingredients

Phthalaldehyde	EC: 211-402-2 CAS: 643-79-8	<2.5	Acute Tox. 3, H301 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)	
Potassium thiocyanate	EC: 206-370-1 CAS: 333-20-0 Index: 615-030-00-5	≤3	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Aquatic Chronic 3, H412	[1] [2]
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	EC: 200-835-2 CAS: 75-05-8 Index: 608-001-00-3	≥90	Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319	[1] [2]
Buffer, Borate 100ml/BT, Part Number 5061-3339 boric acid	EC: 233-139-2 CAS: 10043-35-3 Index: 005-007-00-2	≤1	Repr. 1B, H360FD (Fertility and Unborn child)	[1]
Sodium hydroxide	EC: 215-185-5 CAS: 1310-73-2 Index: 011-002-00-6	≤1	Skin Corr. 1A, H314	[1] [2]
			See Section 16 for the full text of the H statements declared above.	

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.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

[A] Constituent

[B] Impurity

[C] Stabilising additive

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact

: Sarcosine, Part Number 5062-2478

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

L-Tryptophan, Part Number 5062-2478

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

L-Norvaline, Part Number 5062-2478

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

L-Glutamine, Part Number 5062-2478

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

L-Asparagine, Part Number 5062-2478

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

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L-4-Hydroxyproline, Part Number 5062-2478	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Dithiodipropionic, Part Number 5062-2479	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
td 1nmol 10/PK, Part Number 5061-3330	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue 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.
AA, std 25pmol 10/PK, Part Number 5061-3333	Get medical attention immediately. 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.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation : Sarcosine, Part Number 5062-2478	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
L-Tryptophan, Part Number 5062-2478	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
L-Norvaline, Part Number 5062-2478	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
L-Glutamine, Part Number 5062-2478	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed

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

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AA, std 10pmol 10/PK, Part Number 5061-3334	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if 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.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
: L-Tryptophan, Part Number 5062-2478	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
: L-Norvaline, Part Number 5062-2478	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

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L-Glutamine, Part Number 5062-2478	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
L-Asparagine, Part Number 5062-2478	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
L-4-Hydroxyproline, Part Number 5062-2478	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Dithiodipropionic, Part Number 5062-2479	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
td 1nmol 10/PK, Part Number 5061-3330	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
AA, std 25pmol 10/PK, Part Number 5061-3333	Get medical attention immediately. Flush contaminated skin with plenty of 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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
AA, std 10pmol 10/PK, Part Number 5061-3334	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion : Sarcosine, Part Number 5062-2478	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
L-Tryptophan, Part Number 5062-2478	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If

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L-Norvaline, Part Number 5062-2478	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. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
L-Glutamine, Part Number 5062-2478	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
L-Asparagine, Part Number 5062-2478	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
L-4-Hydroxyproline, Part Number 5062-2478	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Dithiodipropionic, Part Number 5062-2479	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
td 1nmol 10/PK, Part Number 5061-3330	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the

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AA, standard 100PMOL 10/PK, Part Number 5061-3332	lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
AA, std 25pmol 10/PK, Part Number 5061-3333	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
AA, std 10pmol 10/PK, Part Number 5061-3334	Get medical attention immediately. 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.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	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	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.
	Wash out mouth with water. Remove dentures if any.

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

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

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention 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.

Protection of first-aiders : Sarcosine, Part Number
5062-2478
L-Tryptophan, Part
Number 5062-2478
L-Norvaline, Part
Number 5062-2478
L-Glutamine, Part
Number 5062-2478
L-Asparagine, Part
Number 5062-2478
L-4-Hydroxyproline, Part
Number 5062-2478
Dithiodipropionic, Part
Number 5062-2479

No action shall be taken involving any personal risk or without suitable training.
No action shall be taken involving any personal risk or without suitable training.
No action shall be taken involving any personal risk or without suitable training.
No action shall be taken involving any personal risk or without suitable training.
No action shall be taken involving any personal risk or without suitable training.
No action shall be taken involving any personal risk or without suitable training.
No action shall be taken involving any personal risk or without suitable training.
No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

No action shall be taken involving any personal risk or without suitable training. 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.

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.

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OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
Buffer, Borate 100ml/BT, Part Number 5061-3339	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed**Potential acute health effects****Eye contact**

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

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

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

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

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

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Sarcosine, Part Number 5062-2478 L-Tryptophan, Part Number 5062-2478 L-Norvaline, Part Number 5062-2478 L-Glutamine, Part Number 5062-2478	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. 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. 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. 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.
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SECTION 4: First aid measures

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

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media	Sarcosine, Part Number 5062-2478	Use dry chemical powder.
	L-Tryptophan, Part Number 5062-2478	Use dry chemical powder.
	L-Norvaline, Part Number 5062-2478	Use dry chemical powder.
	L-Glutamine, Part Number 5062-2478	Use dry chemical powder.
	L-Asparagine, Part Number 5062-2478	Use dry chemical powder.
	L-4-Hydroxyproline, Part Number 5062-2478	Use dry chemical powder.
	Dithiodipropionic, Part Number 5062-2479	Use dry chemical powder.
	td 1nmol 10/PK, Part Number 5061-3330	Use an extinguishing agent suitable for the surrounding fire.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Use an extinguishing agent suitable for the surrounding fire.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Use an extinguishing agent suitable for the surrounding fire.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Use an extinguishing agent suitable for the surrounding fire.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Use an extinguishing agent suitable for the surrounding fire.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Use an extinguishing agent suitable for the surrounding fire.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Use dry chemical, CO ₂ , water spray (fog) or foam.
	Buffer, Borate 100ml/BT, Part Number 5061-3339	Use an extinguishing agent suitable for the surrounding fire.
	Unsuitable extinguishing media	Sarcosine, Part Number 5062-2478
L-Tryptophan, Part Number 5062-2478		Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
L-Norvaline, Part Number 5062-2478		Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
L-Glutamine, Part Number 5062-2478		Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
L-Asparagine, Part Number 5062-2478		Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
L-4-Hydroxyproline, Part Number 5062-2478		Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
Dithiodipropionic, Part Number 5062-2479		Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
td 1nmol 10/PK, Part Number 5061-3330		None known.
AA, standard 250PMOL 10/PK, Part Number 5061-3331		None known.
AA, standard 100PMOL 10/PK, Part Number 5061-3332		None known.
AA, std 25pmol 10/PK, Part Number 5061-3333		None known.
AA, std 10pmol 10/PK, Part Number 5061-3334		None known.
OPA reagent, 10 mg/ml,		None known.

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

Do not use water jet.
 None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

: Sarcosine, Part Number 5062-2478 May form explosible dust-air mixture if dispersed.
 L-Tryptophan, Part Number 5062-2478 May form explosible dust-air mixture if dispersed.
 L-Norvaline, Part Number 5062-2478 May form explosible dust-air mixture if dispersed.
 L-Glutamine, Part Number 5062-2478 May form explosible dust-air mixture if dispersed.
 L-Asparagine, Part Number 5062-2478 May form explosible dust-air mixture if dispersed.
 L-4-Hydroxyproline, Part Number 5062-2478 May form explosible dust-air mixture if dispersed.
 Dithiodipropionic, Part Number 5062-2479 May form explosible dust-air mixture if dispersed.
 td 1nmol 10/PK, Part Number 5061-3330 In a fire or if heated, a pressure increase will occur and the container may burst.
 AA, standard 250PMOL 10/PK, Part Number 5061-3331 In a fire or if heated, a pressure increase will occur and the container may burst.
 AA, standard 100PMOL 10/PK, Part Number 5061-3332 In a fire or if heated, a pressure increase will occur and the container may burst.
 AA, std 25pmol 10/PK, Part Number 5061-3333 In a fire or if heated, a pressure increase will occur and the container may burst.
 AA, std 10pmol 10/PK, Part Number 5061-3334 In a fire or if heated, a pressure increase will occur and the container may burst.
 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products

Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337
 Buffer, Borate 100ml/BT, Part Number 5061-3339
 : Sarcosine, Part Number 5062-2478 Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides
 L-Tryptophan, Part Number 5062-2478 Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides
 L-Norvaline, Part Number 5062-2478 Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides
 L-Glutamine, Part Decomposition products may include the following materials:

SECTION 5: Firefighting measures

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

5.3 Advice for firefighters

Special precautions for fire-fighters

: Sarcosine, Part Number 5062-2478	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
L-Tryptophan, Part Number 5062-2478	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
L-Norvaline, Part	Promptly isolate the scene by removing all persons from the

SECTION 5: Firefighting measures

Number 5062-2478	vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
L-Glutamine, Part Number 5062-2478	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
L-Asparagine, Part Number 5062-2478	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
L-4-Hydroxyproline, Part Number 5062-2478	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Dithiodipropionic, Part Number 5062-2479	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
td 1nmol 10/PK, Part Number 5061-3330	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
AA, std 25pmol 10/PK, Part Number 5061-3333	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
AA, std 10pmol 10/PK, Part Number 5061-3334	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
OPA reagent, 10 mg/ml, 6 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.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
: Sarcosine, Part Number 5062-2478	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
L-Tryptophan, Part Number 5062-2478	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
L-Norvaline, Part Number 5062-2478	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full

Special protective equipment for fire-fighters

SECTION 5: Firefighting measures

L-Glutamine, Part Number 5062-2478	face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
L-Asparagine, Part Number 5062-2478	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
L-4-Hydroxyproline, Part Number 5062-2478	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 5: Firefighting measures

<p>FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</p>	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>
<p>Buffer, Borate 100ml/BT, Part Number 5061-3339</p>	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

<p>For non-emergency personnel</p>	<p>: Sarcosine, Part Number 5062-2478</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>
	<p>L-Tryptophan, Part Number 5062-2478</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>
	<p>L-Norvaline, Part Number 5062-2478</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>
	<p>L-Glutamine, Part Number 5062-2478</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>
	<p>L-Asparagine, Part Number 5062-2478</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>
	<p>L-4-Hydroxyproline, Part Number 5062-2478</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>
	<p>Dithiodipropionic, Part Number 5062-2479</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. Provide adequate ventilation.</p>

SECTION 6: Accidental release measures

td 1nmol 10/PK, Part Number 5061-3330	Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
AA, std 25pmol 10/PK, Part Number 5061-3333	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.
AA, std 10pmol 10/PK, Part Number 5061-3334	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Buffer, Borate 100ml/BT, Part Number 5061-3339	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

SECTION 6: Accidental release measures

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

SECTION 6: Accidental release measures

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

6.3 Methods and material for containment and cleaning up

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35/82

SECTION 6: Accidental release measures

Methods for cleaning up	: Sarcosine, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	L-Tryptophan, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	L-Norvaline, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	L-Glutamine, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	L-Asparagine, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	L-4-Hydroxyproline, Part Number 5062-2478	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	Dithiodipropionic, Part Number 5062-2479	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
	td 1nmol 10/PK, Part Number 5061-3330	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Stop leak if without risk. Move containers from spill area. 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.
	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.
	FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose

SECTION 6: Accidental release measures

Buffer, Borate 100ml/BT, Part Number 5061-3339	of via a licensed waste disposal contractor. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
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6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: Sarcosine, Part Number 5062-2478	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
	L-Tryptophan, Part Number 5062-2478	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
	L-Norvaline, Part Number 5062-2478	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other 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, Part Number 5062-2478	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and

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L-Asparagine, Part Number 5062-2478	<p>bonding containers and equipment before transferring material.</p> <p>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.</p>
L-4-Hydroxyproline, Part Number 5062-2478	<p>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.</p>
Dithiodipropionic, Part Number 5062-2479	<p>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.</p>
td 1nmol 10/PK, Part Number 5061-3330	<p>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.</p>
AA, standard 250PMOL 10/PK, Part Number 5061-3331	<p>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.</p>
AA, standard 100PMOL 10/PK, Part Number 5061-3332	<p>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</p>

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AA, std 25pmol 10/PK, Part Number 5061-3333	AA, std 10pmol 10/PK, Part Number 5061-3334	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Buffer, Borate 100ml/BT, Part Number 5061-3339	: Sarcosine, Part Number 5062-2478	L-Tryptophan, Part Number 5062-2478	<p>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.</p> <p>Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. 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. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.</p> <p>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.</p> <p>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. 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.</p> <p>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.</p> <p>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. Empty containers retain product residue and can be hazardous. Do not reuse container.</p> <p>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.</p> <p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.</p>
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Advice on general occupational hygiene

SECTION 7: Handling and storage

L-Norvaline, Part Number 5062-2478	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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
L-Glutamine, Part Number 5062-2478	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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
L-Asparagine, Part Number 5062-2478	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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
L-4-Hydroxyproline, Part Number 5062-2478	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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Dithiodipropionic, Part Number 5062-2479	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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
td 1nmol 10/PK, Part Number 5061-3330	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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
AA, std 25pmol 10/PK, Part Number 5061-3333	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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
AA, std 10pmol 10/PK, Part Number 5061-3334	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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

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<p>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335</p>	<p>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.</p>
<p>FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</p>	<p>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.</p>
<p>Buffer, Borate 100ml/BT, Part Number 5061-3339</p>	<p>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.</p>

7.2 Conditions for safe storage, including any incompatibilities

Storage

<p>: Sarcosine, Part Number 5062-2478</p>	<p>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.</p>
<p>L-Tryptophan, Part Number 5062-2478</p>	<p>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.</p>
<p>L-Norvaline, Part Number 5062-2478</p>	<p>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.</p>
<p>L-Glutamine, Part Number 5062-2478</p>	<p>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.</p>

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L-Asparagine, Part Number 5062-2478	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
L-4-Hydroxyproline, Part Number 5062-2478	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
Dithiodipropionic, Part Number 5062-2479	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
td 1nmol 10/PK, Part Number 5061-3330	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
AA, std 25pmol 10/PK,	Store in accordance with local regulations. Store in original

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Part Number 5061-3333	container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
AA, std 10pmol 10/PK, Part Number 5061-3334	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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.

Seveso Directive - Reporting thresholds (in tonnes)

Named substances

Name	Notification and MAPP threshold	Safety report threshold
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Methanol	500	5000

Danger criteria

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Category	Notification and MAPP threshold	Safety report threshold
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 E2: Hazardous to the aquatic environment - Chronic 2	200	500
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b	5000	50000

7.3 Specific end use(s)**Recommendations**

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

Industrial sector specific solutions

- : Sarcosine, Part Number 5062-2478 Not applicable.
- L-Tryptophan, Part Number 5062-2478 Not applicable.
- L-Norvaline, Part Number 5062-2478 Not applicable.
- L-Glutamine, Part Number 5062-2478 Not applicable.
- L-Asparagine, Part Number 5062-2478 Not applicable.
- L-4-Hydroxyproline, Part Number 5062-2478 Not applicable.
- Dithiodipropionic, Part Number 5062-2479 Not applicable.
- td 1nmol 10/PK, Part Number 5061-3330 Not applicable.

SECTION 7: Handling and storage

AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not applicable.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not applicable.
AA, std 25pmol 10/PK, Part Number 5061-3333	Not applicable.
AA, std 10pmol 10/PK, Part Number 5061-3334	Not applicable.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not applicable.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not applicable.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide Methanol Potassium thiocyanate	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 2 mg/m ³ 15 minutes. EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 333 mg/m ³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 266 mg/m ³ 8 hours. TWA: 200 ppm 8 hours.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 102 mg/m ³ 15 minutes. STEL: 60 ppm 15 minutes. TWA: 40 ppm 8 hours. TWA: 68 mg/m ³ 8 hours.
Buffer, Borate 100ml/BT, Part Number 5061-3339 Sodium hydroxide	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 2 mg/m ³ 15 minutes.

Recommended monitoring procedures

- : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for

SECTION 8: Exposure controls/personal protection

methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

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

Individual protection measures

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

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

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.

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.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

SECTION 9: Physical and chemical properties

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

SECTION 9: Physical and chemical properties

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

SECTION 9: Physical and chemical properties

	10/PK, Part Number 5061-3332	
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	70 ppm
	Buffer, Borate 100ml/ BT, Part Number 5061-3339	Not available.
pH	: Sarcosine, Part Number 5062-2478	Not available.
	L-Tryptophan, Part Number 5062-2478	5.5 to 7 [Conc. (% w/w): 1%]
	L-Norvaline, Part Number 5062-2478	Not available.
	L-Glutamine, Part Number 5062-2478	Not available.
	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	1.5
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	1.5
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	1.5
	AA, std 25pmol 10/PK, Part Number 5061-3333	1.5
	AA, std 10pmol 10/PK, Part Number 5061-3334	1.5
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	10.4
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not available.
	Buffer, Borate 100ml/ BT, Part Number 5061-3339	10.4
Melting point/freezing point	: Sarcosine, Part Number 5062-2478	208 to 212°C
	L-Tryptophan, Part Number 5062-2478	278.3 to 279.3°C
	L-Norvaline, Part Number 5062-2478	300°C
	L-Glutamine, Part Number 5062-2478	Decomposition temperature: 185°C
	L-Asparagine, Part Number 5062-2478	234 to 235°C
	L-4-Hydroxyproline, Part Number 5062-2478	274°C

SECTION 9: Physical and chemical properties

	Dithiodipropionic, Part Number 5062-2479	155 to 158°C
	td 1nmol 10/PK, Part Number 5061-3330	0°C
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	0°C
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	0°C
	AA, std 25pmol 10/PK, Part Number 5061-3333	0°C
	AA, std 10pmol 10/PK, Part Number 5061-3334	0°C
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	-45°C
	Buffer, Borate 100ml/ BT, Part Number 5061-3339	Not available.
Initial boiling point and boiling range	: Sarcosine, Part Number 5062-2478	Not available.
	L-Tryptophan, Part Number 5062-2478	Not available.
	L-Norvaline, Part Number 5062-2478	Not available.
	L-Glutamine, Part Number 5062-2478	Not available.
	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	100°C
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	100°C
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	100°C
	AA, std 25pmol 10/PK, Part Number 5061-3333	100°C
	AA, std 10pmol 10/PK, Part Number 5061-3334	100°C
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	81.6°C
	Buffer, Borate 100ml/ BT, Part Number 5061-3339	Not available.

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

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

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10/PK, Part Number
5061-3331
AA, standard 100PMOL Not available.
10/PK, Part Number
5061-3332
AA, std 25pmol 10/PK, Not available.
Part Number 5061-3333
AA, std 10pmol 10/PK, Not available.
Part Number 5061-3334
OPA reagent, 10 mg/ml, Not available.
6 ampoules, Part
Number 5061-3335
FMOC reagent 10 Lower: 4.4%
ampoules 1ml ea for
AAA, Part Number
5061-3337
Upper: 16%
Buffer, Borate 100ml/
BT, Part Number
5061-3339 Not available.

Vapour pressure

: Sarcosine, Part Not available.
Number 5062-2478
L-Tryptophan, Part 0 kPa [room temperature]
Number 5062-2478
L-Norvaline, Part Not available.
Number 5062-2478
L-Glutamine, Part Not available.
Number 5062-2478
L-Asparagine, Part 0.0000000064 kPa [room temperature]
Number 5062-2478
L-4-Hydroxyproline, Not available.
Part Number 5062-2478
Dithiodipropionic, Part Not available.
Number 5062-2479
td 1nmol 10/PK, Part Not available.
Number 5061-3330
AA, standard 250PMOL Not available.
10/PK, Part Number
5061-3331
AA, standard 100PMOL Not available.
10/PK, Part Number
5061-3332
AA, std 25pmol 10/PK, Not available.
Part Number 5061-3333
AA, std 10pmol 10/PK, Not available.
Part Number 5061-3334
OPA reagent, 10 mg/ml, Not available.
6 ampoules, Part
Number 5061-3335
FMOC reagent 10 Not available.
ampoules 1ml ea for
AAA, Part Number
5061-3337
Buffer, Borate 100ml/
BT, Part Number
5061-3339 Not available.

Vapour density

: Sarcosine, Part Not available.
Number 5062-2478
L-Tryptophan, Part Not available.
Number 5062-2478
L-Norvaline, Part Not available.
Number 5062-2478
L-Glutamine, Part Not available.
Number 5062-2478

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	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	4.5 [Air = 1]
	Dithiodipropionic, Part Number 5062-2479	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not available.
	Buffer, Borate 100ml/ BT, Part Number 5061-3339	Not available.
Relative density	: Sarcosine, Part Number 5062-2478	Not available.
	L-Tryptophan, Part Number 5062-2478	1.34
	L-Norvaline, Part Number 5062-2478	Not available.
	L-Glutamine, Part Number 5062-2478	Not available.
	L-Asparagine, Part Number 5062-2478	Not available.
	L-4-Hydroxyproline, Part Number 5062-2478	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	1.045
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	0.78
	Buffer, Borate 100ml/ BT, Part Number 5061-3339	1.009

SECTION 9: Physical and chemical properties

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

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

SECTION 9: Physical and chemical properties

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

SECTION 9: Physical and chemical properties

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

9.2 Other information

SECTION 9: Physical and chemical properties

No additional information.

SECTION 10: Stability and reactivity

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

SECTION 10: Stability and reactivity

AA, std 10pmol 10/PK, Part Number 5061-3334
 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335
 Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337
 Buffer, Borate 100ml/BT, Part Number 5061-3339

The product is stable.
 The product is stable.
 The product is stable.
 The product is stable.

10.3 Possibility of hazardous reactions

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

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

10.4 Conditions to avoid

: Sarcosine, Part Number 5062-2478
 L-Tryptophan, Part Number 5062-2478
 L-Norvaline, Part Number 5062-2478

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

SECTION 10: Stability and reactivity

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

10.5 Incompatible materials

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

SECTION 10: Stability and reactivity

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

10.6 Hazardous decomposition products

: Sarcosine, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
L-Tryptophan, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
L-Norvaline, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
L-Glutamine, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
L-Asparagine, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
L-4-Hydroxyproline, Part Number 5062-2478	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Dithiodipropionic, Part Number 5062-2479	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
td 1nmol 10/PK, Part Number 5061-3330	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
AA, standard 100PMOL	Under normal conditions of storage and use, hazardous

SECTION 10: Stability and reactivity

10/PK, Part Number 5061-3332	decomposition products should not be produced.
AA, std 25pmol 10/PK, Part Number 5061-3333	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
AA, std 10pmol 10/PK, Part Number 5061-3334	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
L-Tryptophan, Part Number 5062-2478 L-Tryptophan	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5.17 mg/l	4 hours
	LD50 Oral	Rat	>16 g/kg	-
L-Glutamine, Part Number 5062-2478 Levoglutamide	LD50 Oral	Rat	7500 mg/kg	-
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide boric acid 3-Mercaptopropionic acid Methanol Phthalaldehyde Potassium thiocyanate	LD50 Oral	Rat	273 mg/kg
LD50 Oral		Rat	2660 mg/kg	-
LC50 Inhalation Dusts and mists		Rat	1818 mg/m ³	4 hours
LD50 Oral		Rat	96 mg/kg	-
LC50 Inhalation Vapour		Rat	145000 ppm	1 hours
LC50 Inhalation Vapour		Rat	64000 ppm	4 hours
LD50 Dermal		Rabbit	15800 mg/kg	-
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	LC50 Inhalation Vapour	Rat	17100 ppm	4 hours
	LD50 Oral	Rat	2460 mg/kg	-
Buffer, Borate 100ml/BT, Part Number 5061-3339 boric acid	LD50 Oral	Rat	2660 mg/kg	-

Irritation/Corrosion

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Product/ingredient name	Result	Species	Score	Exposure	Observation	
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide	Eyes - Moderate irritant	Rabbit	-	24 hours 1 milligrams	-	
	Skin - Severe irritant	Guinea pig	-	24 hours 50 milligrams	-	
	Skin - Severe irritant	Rabbit	-	24 hours 50 milligrams	-	
	Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
		Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
		Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-	
	Skin - Mild irritant	Rabbit	-	500 milligrams	-	
Buffer, Borate 100ml/BT, Part Number 5061-3339 Sodium hydroxide	Eyes - Severe irritant	Rabbit	-	24 hours 50 Micrograms	-	
	Eyes - Severe irritant	Rabbit	-	1 Percent	-	
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 1 milligrams	-	
	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-	

Sensitiser

- Conclusion/Summary** : Not available.
- Information on likely routes of exposure** : Sarcosine, Part Number 5062-2478 Not available.
 L-Tryptophan, Part Number 5062-2478 Not available.
 L-Norvaline, Part Number 5062-2478 Not available.
 L-Glutamine, Part Number 5062-2478 Not available.
 L-Asparagine, Part Number 5062-2478 Not available.
 L-4-Hydroxyproline, Part Number 5062-2478 Not available.
 Dithiodipropionic, Part Number 5062-2479 Routes of entry anticipated: Oral, Dermal, Inhalation.
 td 1nmol 10/PK, Part Number 5061-3330 Not available.
 AA, standard 250PMOL 10/PK, Part Number 5061-3331 Not available.
 AA, standard 100PMOL 10/PK, Part Number 5061-3332 Not available.
 AA, std 25pmol 10/PK, Part Number 5061-3333 Not available.
 AA, std 10pmol 10/PK, Part Number 5061-3334 Not available.
 OPA reagent, 10 mg/ml, Routes of entry anticipated: Oral, Dermal, Inhalation.

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6 ampoules, Part
Number 5061-3335
FMOC reagent 10
ampoules 1ml ea for
AAA, Part Number
5061-3337

Routes of entry anticipated: Oral, Dermal, Inhalation.

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

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects**Inhalation**: Sarcosine, Part Number
5062-2478

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

L-Tryptophan, Part
Number 5062-2478

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

L-Norvaline, Part
Number 5062-2478

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

L-Glutamine, Part
Number 5062-2478

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

L-Asparagine, Part
Number 5062-2478

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

L-4-Hydroxyproline, Part
Number 5062-2478

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

Dithiodipropionic, Part
Number 5062-2479

May cause respiratory irritation.

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

No known significant effects or critical hazards.

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

No known significant effects or critical hazards.

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

No known significant effects or critical hazards.

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

May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system.

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

No known significant effects or critical hazards.

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

No known significant effects or critical hazards.

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

Harmful if inhaled.

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

No known significant effects or critical hazards.

Ingestion: Sarcosine, Part Number
5062-2478

No known significant effects or critical hazards.

L-Tryptophan, Part
Number 5062-2478

No known significant effects or critical hazards.

L-Norvaline, Part
Number 5062-2478

No known significant effects or critical hazards.

L-Glutamine, Part
Number 5062-2478

No known significant effects or critical hazards.

L-Asparagine, Part
Number 5062-2478

No known significant effects or critical hazards.

L-4-Hydroxyproline, Part
Number 5062-2478

No known significant effects or critical hazards.

Dithiodipropionic, Part
Number 5062-2479

No known significant effects or critical hazards.

SECTION 11: Toxicological information

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

SECTION 11: Toxicological information

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

Symptoms related to the physical, chemical and toxicological characteristics**Inhalation**

: Sarcosine, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
L-Tryptophan, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
L-Norvaline, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
L-Glutamine, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
L-Asparagine, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
L-4-Hydroxyproline, Part Number 5062-2478	Adverse symptoms may include the following: respiratory tract irritation coughing
Dithiodipropionic, Part Number 5062-2479	Adverse symptoms may include the following: respiratory tract irritation coughing
td 1nmol 10/PK, Part Number 5061-3330	No specific data.

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

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

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

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

General	: Sarcosine, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Tryptophan, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Norvaline, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Glutamine, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-Asparagine, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	L-4-Hydroxyproline, Part Number 5062-2478	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
	Dithiodipropionic, Part Number 5062-2479	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

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

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

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

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Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 No known significant effects or critical hazards.

Buffer, Borate 100ml/BT, Part Number 5061-3339 No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

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

SECTION 12: Ecological information

Sodium hydroxide	Acute EC50 40.38 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 125 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
L-Tryptophan, Part Number 5062-2478 L-Tryptophan	OECD 301B Ready Biodegradability - CO2 Evolution Test	77 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
L-Tryptophan, Part Number 5062-2478 L-Tryptophan	-	-	Readily
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide boric acid	- -	- -	Readily Not readily
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	-	-	Readily
Buffer, Borate 100ml/BT, Part Number 5061-3339 boric acid Sodium hydroxide	- -	- -	Not readily Readily

12.3 Bioaccumulative potential

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

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L-Asparagine, Part Number 5062-2478			
L-Asparagine, Part Number 5062-2478	-3.82	-	low
Asparagine	-3.82	-	low
L-4-Hydroxyproline, Part Number 5062-2478			
L-4-Hydroxyproline, Part Number 5062-2478	-3.17	-	low
L-4-Hydroxyproline	-3.17	-	low
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335			
boric acid	-1.09	-	low
3-Mercaptopropionic acid	-2.32	-	low
Methanol	-0.77	<10	low
Potassium thiocyanate	-2.52	-	low
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337			
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	<1	-	low
Acetonitrile	-0.34	3	low
Buffer, Borate 100ml/BT, Part Number 5061-3339			
boric acid	-1.09	-	low

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 13: Disposal considerations

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information**Regulatory information**

ADR/RID / IMDG / IATA : Not regulated.

Additional information : **Remarks**
De minimis quantities

14.6 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.

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

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU Regulation (EC) No. 1907/2006 (REACH)****Annex XIV - List of substances subject to authorisation****Annex XIV**

None of the components are listed.

Substances of very high concern

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 boric acid	Toxic to reproduction	Recommended	ED/30/2010	7/1/2015
Buffer, Borate 100ml/BT, Part Number 5061-3339 boric acid	Toxic to reproduction	Recommended	ED/30/2010	7/1/2015

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles :

Sarcosine, Part Number 5062-2478	Not applicable.
L-Tryptophan, Part Number 5062-2478	Not applicable.
L-Norvaline, Part Number 5062-2478	Not applicable.
L-Glutamine, Part Number 5062-2478	Not applicable.
L-Asparagine, Part Number 5062-2478	Not applicable.
L-4-Hydroxyproline, Part Number 5062-2478	Not applicable.
Dithiodipropionic, Part Number 5062-2479	Not applicable.
td 1nmol 10/PK, Part Number 5061-3330	Not applicable.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not applicable.
AA, standard 100PMOL	Not applicable.

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

SECTION 15: Regulatory information

10/PK, Part Number 5061-3332	
AA, std 25pmol 10/PK, Part Number 5061-3333	Not applicable.
AA, std 10pmol 10/PK, Part Number 5061-3334	Not applicable.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not applicable.
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not applicable.
Buffer, Borate 100ml/BT, Part Number 5061-3339	Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Air

Industrial emissions (integrated pollution prevention and control) - Water : Listed

Industrial emissions (integrated pollution prevention and control) - Water

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Named substances

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

Danger criteria

Category
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 E2: Hazardous to the aquatic environment - Chronic 2
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b

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.

SECTION 15: Regulatory informationInternational listsNational inventory

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

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Dithiodipropionic, Part Number 5062-2479 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	Expert judgment Expert judgment Expert judgment
td 1nmol 10/PK, Part Number 5061-3330 Met. Corr. 1, H290	Expert judgment
AA, standard 250PMOL 10/PK, Part Number 5061-3331 Met. Corr. 1, H290	Expert judgment
AA, standard 100PMOL 10/PK, Part Number 5061-3332 Met. Corr. 1, H290	Expert judgment
AA, std 25pmol 10/PK, Part Number 5061-3333 Met. Corr. 1, H290	Expert judgment
AA, std 10pmol 10/PK, Part Number 5061-3334 Met. Corr. 1, H290	Expert judgment
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Acute Tox. 4, H302 Skin Corr. 1A, H314 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Calculation method Calculation method Calculation method Calculation method
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	

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

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SECTION 16: Other information

Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319 Buffer, Borate 100ml/BT, Part Number 5061-3339 Skin Irrit. 2, H315 Eye Irrit. 2, H319	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method
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Full text of abbreviated H statements

Dithiodipropionic, Part Number 5062-2479 H315 H319 H335 td 1nmol 10/PK, Part Number 5061-3330 H290 AA, standard 250PMOL 10/PK, Part Number 5061-3331 H290 AA, standard 100PMOL 10/PK, Part Number 5061-3332 H290 AA, std 25pmol 10/PK, Part Number 5061-3333 H290 AA, std 10pmol 10/PK, Part Number 5061-3334 H290 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 H225 H290 H301 H302 H311 H312 H314 H315 H317 H318 H331 H332 H335 H360FD H370 H400 H410 H411 H412 FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 H225 H302 H312 H319 H332 Buffer, Borate 100ml/BT, Part Number	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May be corrosive to metals. May be corrosive to metals. May be corrosive to metals. May be corrosive to metals. May be corrosive to metals. Highly flammable liquid and vapour. May be corrosive to metals. Toxic if swallowed. Harmful if swallowed. Toxic in contact with skin. Harmful in contact with skin. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Toxic if inhaled. Harmful if inhaled. May cause respiratory irritation. May damage fertility. May damage the unborn child. Causes damage to organs. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects. Highly flammable liquid and vapour. Harmful if swallowed. Harmful in contact with skin. Causes serious eye irritation. Harmful if inhaled.
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SECTION 16: Other information**5061-3339**

H314
H315
H319
H360FD

Causes severe skin burns and eye damage.
Causes skin irritation.
Causes serious eye irritation.
May damage fertility. May damage the unborn child.

[Full text of classifications \[CLP/GHS\]](#)**Dithiodipropionic, Part Number 5062-2479**

Eye Irrit. 2, H319
Skin Irrit. 2, H315
STOT SE 3, H335

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

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

Met. Corr. 1, H290

CORROSIVE TO METALS - Category 1

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

Met. Corr. 1, H290

CORROSIVE TO METALS - Category 1

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

Met. Corr. 1, H290

CORROSIVE TO METALS - Category 1

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

Met. Corr. 1, H290

CORROSIVE TO METALS - Category 1

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

Met. Corr. 1, H290

CORROSIVE TO METALS - Category 1

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

Acute Tox. 3, H301
Acute Tox. 3, H311
Acute Tox. 3, H331
Acute Tox. 4, H302
Acute Tox. 4, H312
Acute Tox. 4, H332
Aquatic Acute 1, H400
Aquatic Chronic 1, H410
Aquatic Chronic 2, H411
Aquatic Chronic 3, H412
Eye Dam. 1, H318
Flam. Liq. 2, H225
Met. Corr. 1, H290
Repr. 1B, H360FD

ACUTE TOXICITY (oral) - Category 3
ACUTE TOXICITY (dermal) - Category 3
ACUTE TOXICITY (inhalation) - Category 3
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
ACUTE AQUATIC HAZARD - Category 1
LONG-TERM AQUATIC HAZARD - Category 1
LONG-TERM AQUATIC HAZARD - Category 2
LONG-TERM AQUATIC HAZARD - Category 3
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
FLAMMABLE LIQUIDS - Category 2
CORROSIVE TO METALS - Category 1
REPRODUCTIVE TOXICITY (Fertility and Unborn child) - Category 1B

Skin Corr. 1A, H314
Skin Corr. 1B, H314
Skin Irrit. 2, H315
Skin Sens. 1, H317
Skin Sens. 1A, H317
STOT SE 1, H370

SKIN CORROSION/IRRITATION - Category 1A
SKIN CORROSION/IRRITATION - Category 1B
SKIN CORROSION/IRRITATION - Category 2
SKIN SENSITISATION - Category 1
SKIN SENSITISATION - Category 1A
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE
(Respiratory tract irritation) - Category 3

STOT SE 3, H335

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

Acute Tox. 4, H302
Acute Tox. 4, H312
Acute Tox. 4, H332
Eye Irrit. 2, H319
Flam. Liq. 2, H225

ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
FLAMMABLE LIQUIDS - Category 2

SECTION 16: Other information

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

Eye Irrit. 2, H319
Repr. 1B, H360FD

Skin Corr. 1A, H314
Skin Irrit. 2, H315

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
REPRODUCTIVE TOXICITY (Fertility and Unborn child) - Category 1B
SKIN CORROSION/IRRITATION - Category 1A
SKIN CORROSION/IRRITATION - Category 2

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

Date of previous issue : No previous validation.

Version : 1

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

Notice to reader

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