

SAFETY DATA SHEET



Amino Acids Kit, Part Number 5063-6588

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

1.1 Product identifier

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

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

Material uses	: <input checked="" type="checkbox"/> Reagents and Standards for Analytical Chemistry Laboratory Use
	<input checked="" type="checkbox"/> Sarcosine 1 g L-Tryptophan 1 g L-Norvaline 1 g L-Glutamine 1 g L-Asparagine 1 g L-4-Hydroxyproline 1 g Dithiodipropionic, Part Number 5062-2479 1 x 5 g Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 10 x 1 ml OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 6 x 1 ml AA, std 10pmol 10/PK, Part Number 5061-3334 10 x 1 ml AA, std 25pmol 10/PK, Part Number 5061-3333 10 x 1 ml AA, standard 100PMOL 10/PK, Part Number 5061-3332 10 x 1 ml td 1nmol 10/PK, Part Number 5061-3330 10 x 1 ml AA, standard 250PMOL 10/PK, Part Number 5061-3331 10 x 1 ml

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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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

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

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

H225 FLAMMABLE LIQUIDS - Category 2
H302 ACUTE TOXICITY (oral) - Category 4

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

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H312 ACUTE TOXICITY (dermal) - Category 4
H332 ACUTE TOXICITY (inhalation) - Category 4
H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

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 (CHRONIC) AQUATIC HAZARD - Category 2

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

H290 CORROSIVE TO METALS - Category 1

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

H290 CORROSIVE TO METALS - Category 1

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

H290 CORROSIVE TO METALS - Category 1

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

H290 CORROSIVE TO METALS - Category 1

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

H290 CORROSIVE TO METALS - Category 1

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

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

Amino Acids Kit, Part Number 5063-6588

SECTION 2: Hazards identification

Hazard pictograms

: Dithiodipropionic, Part Number 5062-2479



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



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



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



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



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



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



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



Signal word

: Sarcosine
L-Tryptophan
L-Norvaline
L-Glutamine
L-Asparagine
L-4-Hydroxyproline
Dithiodipropionic, Part Number 5062-2479
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335
AA, std 10pmol 10/PK, Part Number 5061-3334
AA, std 25pmol 10/PK, Part Number 5061-3333
AA, standard 100PMOL 10/PK, Part Number 5061-3332

No signal word.
No signal word.
No signal word.
No signal word.
No signal word.
No signal word.
Warning

Danger

Danger

Warning

Warning

Warning

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Hazard statements	: td 1nmol 10/PK, Part Number 5061-3330 AA, standard 250PMOL 10/PK, Part Number 5061-3331 Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 AA, std 10pmol 10/PK, Part Number 5061-3334 AA, std 25pmol 10/PK, Part Number 5061-3333 AA, standard 100PMOL 10/PK, Part Number 5061-3332 td 1nmol 10/PK, Part Number 5061-3330 AA, standard 250PMOL 10/PK, Part Number 5061-3331	Warning Warning No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. H319 - Causes serious eye irritation. H315 - Causes skin irritation. H335 - May cause respiratory irritation. H225 - Highly flammable liquid and vapour. H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled. H319 - Causes serious eye irritation. H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction. H411 - Toxic to aquatic life with long lasting effects. H290 - May be corrosive to metals. H290 - May be corrosive to metals. H290 - May be corrosive to metals. H290 - May be corrosive to metals. H290 - May be corrosive to metals.	Warning Warning No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. H319 - Causes serious eye irritation. H315 - Causes skin irritation. H335 - May cause respiratory irritation. H225 - Highly flammable liquid and vapour. H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled. H319 - Causes serious eye irritation. H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction. H411 - Toxic to aquatic life with long lasting effects. H290 - May be corrosive to metals. H290 - May be corrosive to metals. H290 - May be corrosive to metals. H290 - May be corrosive to metals. H290 - May be corrosive to metals.
Precautionary statements	: Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 AA, std 10pmol 10/PK,	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P280 - Wear protective gloves. Wear eye or face protection. P261 - Avoid breathing dust. P280 - Wear protective gloves. Wear protective clothing. Wear eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 - Wear protective gloves. Wear protective clothing. Wear eye or face protection. P273 - Avoid release to the environment. P234 - Keep only in original packaging.	
Prevention	: Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 AA, std 10pmol 10/PK,	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P280 - Wear protective gloves. Wear eye or face protection. P261 - Avoid breathing dust. P280 - Wear protective gloves. Wear protective clothing. Wear eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 - Wear protective gloves. Wear protective clothing. Wear eye or face protection. P273 - Avoid release to the environment. P234 - Keep only in original packaging.	

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	Part Number 5061-3334	P234 - Keep only in original packaging.
	AA, std 25pmol 10/PK, Part Number 5061-3333	P234 - Keep only in original packaging.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	P234 - Keep only in original packaging.
	td 1nmol 10/PK, Part Number 5061-3330	P234 - Keep only in original packaging.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	P234 - Keep only in original packaging.
Response	: <input checked="" type="checkbox"/> Sarcosine	Not applicable.
	L-Tryptophan	Not applicable.
	L-Norvaline	Not applicable.
	L-Glutamine	Not applicable.
	L-Asparagine	Not applicable.
	L-4-Hydroxyproline	Not applicable.
	Dithiodipropionic, Part Number 5062-2479	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.
	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.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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. Immediately call a POISON CENTER or physician. P305 + P310 - IF IN EYES: Immediately call a POISON CENTER or physician. P390 - Absorb spillage to prevent material damage.
	AA, std 10pmol 10/PK, Part Number 5061-3334	P390 - Absorb spillage to prevent material damage.
	AA, std 25pmol 10/PK, Part Number 5061-3333	P390 - Absorb spillage to prevent material damage.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	P390 - Absorb spillage to prevent material damage.
	td 1nmol 10/PK, Part Number 5061-3330	P390 - Absorb spillage to prevent material damage.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	P390 - Absorb spillage to prevent material damage.
Storage	: <input checked="" type="checkbox"/> Sarcosine	Not applicable.
	L-Tryptophan	Not applicable.
	L-Norvaline	Not applicable.
	L-Glutamine	Not applicable.
	L-Asparagine	Not applicable.
	L-4-Hydroxyproline	Not applicable.
	Dithiodipropionic, Part Number 5062-2479	P405 - Store locked up.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not applicable.
	OPA reagent, 10 mg/ml,	P405 - Store locked up.

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

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ampoules 1ml ea for AAA, Part Number 5061-3337	
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Contains isocyanates. May produce an allergic reaction.
AA, std 10pmol 10/PK, Part Number 5061-3334	Not applicable.
AA, std 25pmol 10/PK, Part Number 5061-3333	Not applicable.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not applicable.
td 1nmol 10/PK, Part Number 5061-3330	Not applicable.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles :	
<input checked="" type="checkbox"/> Sarcosine	Not applicable.
<input type="checkbox"/> L-Tryptophan	Not applicable.
<input type="checkbox"/> L-Norvaline	Not applicable.
<input type="checkbox"/> L-Glutamine	Not applicable.
<input type="checkbox"/> L-Asparagine	Not applicable.
<input type="checkbox"/> L-4-Hydroxyproline	Not applicable.
<input type="checkbox"/> Dithiodipropionic, Part Number 5062-2479	Not applicable.
<input type="checkbox"/> Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not applicable.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not applicable.
AA, std 10pmol 10/PK, Part Number 5061-3334	Not applicable.
AA, std 25pmol 10/PK, Part Number 5061-3333	Not applicable.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not applicable.
td 1nmol 10/PK, Part Number 5061-3330	Not applicable.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not applicable.

Special packaging requirements

Tactile warning of danger :	
<input checked="" type="checkbox"/> Sarcosine	Not applicable.
<input type="checkbox"/> L-Tryptophan	Not applicable.
<input type="checkbox"/> L-Norvaline	Not applicable.
<input type="checkbox"/> L-Glutamine	Not applicable.
<input type="checkbox"/> L-Asparagine	Not applicable.
<input type="checkbox"/> L-4-Hydroxyproline	Not applicable.
<input type="checkbox"/> Dithiodipropionic, Part Number 5062-2479	Not applicable.
<input type="checkbox"/> Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not applicable.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not applicable.

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AA, std 10pmol 10/PK, Part Number 5061-3334	Not applicable.
AA, std 25pmol 10/PK, Part Number 5061-3333	Not applicable.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not applicable.
td 1nmol 10/PK, Part Number 5061-3330	Not applicable.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not applicable.

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.1 Substances	Sarcosine	Mono-constituent substance
	L-Tryptophan	Mono-constituent substance
	L-Norvaline	Mono-constituent substance
	L-Glutamine	Mono-constituent substance
	L-Asparagine	Mono-constituent substance
	L-4-Hydroxyproline	Mono-constituent substance
	Dithiodipropionic, Part Number 5062-2479	Mono-constituent substance
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Mixture
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Mixture
	AA, std 10pmol 10/PK, Part Number 5061-3334	Mixture
	AA, std 25pmol 10/PK, Part Number 5061-3333	Mixture

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SECTION 3: Composition/information on ingredients

AA, standard 100PMOL 10/PK, Part Number 5061-3332 Mixture
 td 1nmol 10/PK, Part Number 5061-3330 Mixture
 AA, standard 250PMOL 10/PK, Part Number 5061-3331 Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Sarcosine Sarcosine	EC: 203-538-6 CAS: 107-97-1	100	Not classified.	[A]
L-Tryptophan L-Tryptophan	EC: 200-795-6 CAS: 73-22-3	100	Not classified.	[A]
L-Norvaline Norvaline	EC: 229-543-3 CAS: 6600-40-4	100	Not classified.	[A]
L-Glutamine Levoglutamide	EC: 200-292-1 CAS: 56-85-9	100	Not classified.	[A]
L-Asparagine Asparagine	EC: 200-735-9 CAS: 70-47-3	100	Not classified.	[A]
L-4-Hydroxyproline 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]
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]
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	[1]

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SECTION 3: Composition/information on ingredients

Methanol	EC: 200-659-6 CAS: 67-56-1 Index: 603-001-00-X	<3	Aquatic Chronic 2, H411 Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370	[1] [2]
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)	[1]
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 See Section 16 for the full text of the H statements declared above.	[1] [2]

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
- [6] Additional disclosure due to company policy
- [A] Constituent
- [B] Impurity
- [C] Stabilising additive

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Sarcosine	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	L-Tryptophan	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	L-Norvaline	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	L-Glutamine	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	L-Asparagine	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	L-4-Hydroxyproline	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.
	FMOc reagent 10 ampoules 1ml ea for	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove

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SECTION 4: First aid measures

AAA, Part Number 5061-3337	any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
AA, std 10pmol 10/PK, Part Number 5061-3334	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
AA, std 25pmol 10/PK, Part Number 5061-3333	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, standard 100PMOL 10/PK, Part Number 5061-3332	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
td 1nmol 10/PK, Part Number 5061-3330	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	:
Sarcosine	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
L-Tryptophan	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
L-Norvaline	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
L-Glutamine	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
L-Asparagine	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
L-4-Hydroxyproline	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition

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Dithiodipropionic, Part Number 5062-2479	products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If 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.
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.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
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.
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

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<p>AA, standard 100PMOL 10/PK, Part Number 5061-3332</p>	<p>td 1nmol 10/PK, Part Number 5061-3330</p>	<p>AA, standard 250PMOL 10/PK, Part Number 5061-3331</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
<p>Skin contact</p>	<p>: Sarcosine</p> <p>L-Tryptophan</p> <p>L-Norvaline</p> <p>L-Glutamine</p> <p>L-Asparagine</p> <p>L-4-Hydroxyproline</p> <p>Dithiodipropionic, Part Number 5062-2479</p> <p>Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</p>	<p>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</p> <p>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</p> <p>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</p> <p>Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</p> <p>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</p> <p>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.</p> <p>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</p>	

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

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L-4-Hydroxyproline	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.
Dithiodipropionic, Part Number 5062-2479	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. 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.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
AA, std 10pmol 10/PK, Part Number 5061-3334	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

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

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.

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.

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

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

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

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

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

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

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<p>Protection of first-aiders : Sarcosine</p>	<p>No action shall be taken involving any personal risk or without suitable training.</p>
<p>L-Tryptophan</p>	<p>No action shall be taken involving any personal risk or without suitable training.</p>
<p>L-Norvaline</p>	<p>No action shall be taken involving any personal risk or without suitable training.</p>
<p>L-Glutamine</p>	<p>No action shall be taken involving any personal risk or without suitable training.</p>
<p>L-Asparagine</p>	<p>No action shall be taken involving any personal risk or without suitable training.</p>
<p>L-4-Hydroxyproline</p>	<p>No action shall be taken involving any personal risk or without suitable training.</p>
<p>Dithiodipropionic, Part Number 5062-2479</p>	<p>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.</p>
<p>FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337</p>	<p>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.</p>
<p>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335</p>	<p>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.</p>
<p>AA, std 10pmol 10/PK, Part Number 5061-3334</p>	<p>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.</p>
<p>AA, std 25pmol 10/PK, Part Number 5061-3333</p>	<p>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.</p>
<p>AA, standard 100PMOL 10/PK, Part Number 5061-3332</p>	<p>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.</p>
<p>td 1nmol 10/PK, Part Number 5061-3330</p>	<p>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.</p>
<p>AA, standard 250PMOL 10/PK, Part Number 5061-3331</p>	<p>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.</p>

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

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

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

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AA, std 25pmol 10/PK, Part Number 5061-3333	May cause burns to mouth, throat and stomach.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact

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

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

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

4.3 Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

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Suitable extinguishing media	<input checked="" type="checkbox"/> L-Sarcosine	Use dry chemical powder.
	L-Tryptophan	Use dry chemical powder.
	L-Norvaline	Use dry chemical powder.
	L-Glutamine	Use dry chemical powder.
	L-Asparagine	Use dry chemical powder.
	L-4-Hydroxyproline	Use dry chemical powder.
	Dithiodipropionic, Part Number 5062-2479	Use dry chemical powder.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Use dry chemical, CO ₂ , water spray (fog) or foam.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Use an extinguishing agent suitable for the surrounding fire.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Use an extinguishing agent suitable for the surrounding fire.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Use an extinguishing agent suitable for the surrounding fire.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Use an extinguishing agent suitable for the surrounding fire.
	td 1nmol 10/PK, Part Number 5061-3330	Use an extinguishing agent suitable for the surrounding fire.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	<input checked="" type="checkbox"/> L-Sarcosine	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
	L-Tryptophan	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
	L-Norvaline	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
	L-Glutamine	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
	L-Asparagine	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
	L-4-Hydroxyproline	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.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Do not use water jet.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	None known.
	AA, std 10pmol 10/PK, Part Number 5061-3334	None known.
	AA, std 25pmol 10/PK, Part Number 5061-3333	None known.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	None known.
	td 1nmol 10/PK, Part Number 5061-3330	None known.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	None known.

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SECTION 5: Firefighting measures

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:  Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. May form explosible dust-air mixture if dispersed. Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:  Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 FMOc reagent 10 ampoules 1ml ea for	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides Decomposition products may include the following materials:

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AAA, Part Number
5061-3337

carbon dioxide
carbon monoxide
nitrogen oxides
cyanides

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

Decomposition products may include the following materials:

carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides
Formaldehyde.
No specific data.

AA, std 10pmol 10/PK,
Part Number 5061-3334
AA, std 25pmol 10/PK,
Part Number 5061-3333
AA, standard 100PMOL
10/PK, Part Number
5061-3332

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.

5.3 Advice for firefighters

Special precautions for fire-fighters

:  Sarcosine

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

L-Tryptophan

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

L-Norvaline

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

L-Glutamine

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

L-Asparagine

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


L-4-Hydroxyproline

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

Dithiodipropionic, Part
Number 5062-2479

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be

SECTION 5: Firefighting measures

FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	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. 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. 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. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
AA, std 10pmol 10/PK, Part Number 5061-3334	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
AA, std 25pmol 10/PK, Part Number 5061-3333	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
AA, standard 100PMOL 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.
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.
Special protective equipment for fire-fighters :  Sarcosine	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	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	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-Glutamine	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	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	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.

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SECTION 5: Firefighting measures

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.
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. 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.
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.
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, 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.
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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

:  sarcosine

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


L-Tryptophan

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering.

SECTION 6: Accidental release measures

	<p>Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.</p>
L-Norvaline	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.</p>
L-Glutamine	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.</p>
L-Asparagine	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.</p>
L-4-Hydroxyproline	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.</p>
Dithiodipropionic, Part Number 5062-2479	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>
AA, std 10pmol 10/PK, Part Number 5061-3334	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put</p>

SECTION 6: Accidental release measures


AA, std 25pmol 10/PK, Part Number 5061-3333	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. Do not breathe 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.
td 1nmol 10/PK, Part Number 5061-3330	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:  Sarcosine
L-Tryptophan	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
L-Norvaline	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
L-Glutamine	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
L-Asparagine	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
L-4-Hydroxyproline	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Dithiodipropionic, Part Number 5062-2479	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
OPA reagent, 10 mg/ml,	If specialised clothing is required to deal with the spillage,

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6 ampoules, Part Number 5061-3335	take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
AA, std 10pmol 10/PK, Part Number 5061-3334	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
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, standard 100PMOL 10/PK, Part Number 5061-3332	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
td 1nmol 10/PK, Part Number 5061-3330	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
AA, standard 250PMOL 10/PK, Part Number 5061-3331	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

:  Sarcosine	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
L-Tryptophan	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
L-Norvaline	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
L-Glutamine	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
L-Asparagine	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
L-4-Hydroxyproline	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Dithiodipropionic, Part Number 5062-2479	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large

SECTION 6: Accidental release measures

AA, std 10pmol 10/PK, Part Number 5061-3334	quantities. Collect spillage. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
AA, std 25pmol 10/PK, Part Number 5061-3333	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
td 1nmol 10/PK, Part Number 5061-3330	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : sarcosine

	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
L-Tryptophan	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
L-Norvaline	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
L-Glutamine	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
L-Asparagine	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
L-4-Hydroxyproline	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Dithiodipropionic, Part Number 5062-2479	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
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

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SECTION 6: Accidental release measures

AA, std 10pmol 10/PK, Part Number 5061-3334	place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. 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, standard 100PMOL 10/PK, Part Number 5061-3332	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
td 1nmol 10/PK, Part Number 5061-3330	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

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

SECTION 7: Handling and storage

L-Norvaline	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
L-Glutamine	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
L-Asparagine	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
L-4-Hydroxyproline	Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
Dithiodipropionic, Part Number 5062-2479	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to


SECTION 7: Handling and storage

FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	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. Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
AA, std 10pmol 10/PK, Part Number 5061-3334	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
AA, std 25pmol 10/PK, Part Number 5061-3333	Put on appropriate personal protective equipment (see Section 8). Do not 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.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
td 1nmol 10/PK, Part Number 5061-3330	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the

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SECTION 7: Handling and storage

Advice on general occupational hygiene

AA, standard 250PMOL 10/PK, Part Number 5061-3331	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.
:  Sarcosine	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.
L-Tryptophan	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
L-Norvaline	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
L-Glutamine	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
L-Asparagine	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
L-4-Hydroxyproline	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Dithiodipropionic, Part Number 5062-2479	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
OPA reagent, 10 mg/ml,	Eating, drinking and smoking should be prohibited in areas

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SECTION 7: Handling and storage

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

7.2 Conditions for safe storage, including any incompatibilities

Storage

:  Sarcosine

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

L-Tryptophan

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

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L-Norvaline	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
L-Glutamine	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
L-Asparagine	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
L-4-Hydroxyproline	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Dithiodipropionic, Part Number 5062-2479	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
FMOc reagent 10 ampoules 1ml ea for	Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in

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AAA, Part Number 5061-3337	a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
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 away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
AA, std 25pmol 10/PK, Part Number 5061-3333	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. 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 away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
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 away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been

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

opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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

Seveso Directive - Reporting thresholds (in tonnes)

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 P5c	5000	50000
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 E2	200	500

7.3 Specific end use(s)

Recommendations

<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 FMOC reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 AA, std 10pmol 10/PK, Part Number 5061-3334 AA, std 25pmol 10/PK, Part Number 5061-3333 AA, standard 100PMOL 10/PK, Part Number 5061-3332 td 1nmol 10/PK, Part Number 5061-3330 AA, standard 250PMOL 10/PK, Part Number 5061-3331 	<ul style="list-style-type: none"> Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
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SECTION 7: Handling and storage

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
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.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 2 mg/m ³ 15 minutes.
Methanol	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.
Potassium thiocyanate	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. TWA: 5 mg/m ³ , (as CN) 8 hours.

SECTION 8: Exposure controls/personal protection

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

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.

Skin protection

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

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

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

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SECTION 9: Physical and chemical properties

Odour	:	<ul style="list-style-type: none"> Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 AA, std 10pmol 10/PK, Part Number 5061-3334 AA, std 25pmol 10/PK, Part Number 5061-3333 AA, standard 100PMOL 10/PK, Part Number 5061-3332 td 1nmol 10/PK, Part Number 5061-3330 AA, standard 250PMOL 10/PK, Part Number 5061-3331 	<ul style="list-style-type: none"> Not available. Odourless. Not available. Not available. Not available. Odourless. Unpleasant. [Strong] Ethereal. [Slight] Slight Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Odour threshold	:	<ul style="list-style-type: none"> Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 AA, std 10pmol 10/PK, Part Number 5061-3334 AA, std 25pmol 10/PK, Part Number 5061-3333 AA, standard 100PMOL 10/PK, Part Number 5061-3332 td 1nmol 10/PK, Part Number 5061-3330 AA, standard 250PMOL 10/PK, Part Number 5061-3331 	<ul style="list-style-type: none"> Not available. Not available. Not available. Not available. Not available. Not available. Not available. 70 ppm Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
pH	:	<ul style="list-style-type: none"> Sarcosine L-Tryptophan L-Norvaline L-Glutamine L-Asparagine L-4-Hydroxyproline Dithiodipropionic, Part Number 5062-2479 	<ul style="list-style-type: none"> Not available. 5.5 to 7 [Conc. (% w/w): 1%] Not available. Not available. Not available. Not available. Not available.

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SECTION 9: Physical and chemical properties

	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not available.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	10.4
	AA, std 10pmol 10/PK, Part Number 5061-3334	1.5
	AA, std 25pmol 10/PK, Part Number 5061-3333	1.5
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	1.5
	td 1nmol 10/PK, Part Number 5061-3330	1.5
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	1.5
Melting point/freezing point	: Sarcosine	208 to 212°C
	L-Tryptophan	278.3 to 279.3°C
	L-Norvaline	300°C
	L-Glutamine	Decomposition temperature: 185°C
	L-Asparagine	234 to 235°C
	L-4-Hydroxyproline	274°C
	Dithiodipropionic, Part Number 5062-2479	155 to 158°C
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	-45°C
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	AA, std 10pmol 10/PK, Part Number 5061-3334	0°C
	AA, std 25pmol 10/PK, Part Number 5061-3333	0°C
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	0°C
	td 1nmol 10/PK, Part Number 5061-3330	0°C
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	0°C
Initial boiling point and boiling range	: Sarcosine	Not available.
	L-Tryptophan	Not available.
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	81.6°C
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not available.
	AA, std 10pmol 10/PK,	100°C

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SECTION 9: Physical and chemical properties

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

Flash point

: **S**arcosine Not available.
L-Tryptophan Not available.
L-Norvaline Not available.
L-Glutamine Not available.
L-Asparagine Not available.
L-4-Hydroxyproline Not available.
Dithiodipropionic, Part Not available.
Number 5062-2479
FMOC reagent 10 Closed cup: 2°C
ampoules 1ml ea for
AAA, Part Number
5061-3337
OPA reagent, 10 mg/ml, Not available.
6 ampoules, Part
Number 5061-3335
AA, std 10pmol 10/PK, Not available.
Part Number 5061-3334
AA, std 25pmol 10/PK, Not available.
Part Number 5061-3333
AA, standard 100PMOL Not available.
10/PK, Part Number
5061-3332
td 1nmol 10/PK, Part Not available.
Number 5061-3330
AA, standard 250PMOL Not available.
10/PK, Part Number
5061-3331

Evaporation rate

: **S**arcosine Not available.
L-Tryptophan Not available.
L-Norvaline Not available.
L-Glutamine Not available.
L-Asparagine Not available.
L-4-Hydroxyproline Not available.
Dithiodipropionic, Part Not available.
Number 5062-2479
FMOC reagent 10 5.79 (butyl acetate = 1)
ampoules 1ml ea for
AAA, Part Number
5061-3337
OPA reagent, 10 mg/ml, <1 (butyl acetate = 1)
6 ampoules, Part
Number 5061-3335
AA, std 10pmol 10/PK, Not available.
Part Number 5061-3334
AA, std 25pmol 10/PK, Not available.
Part Number 5061-3333
AA, standard 100PMOL Not available.
10/PK, Part Number
5061-3332

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SECTION 9: Physical and chemical properties

	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not available.
Flammability (solid, gas)	: S arcosine	Not available.
	L-Tryptophan	Not available.
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Not applicable.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Not applicable.
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not applicable.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not applicable.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not applicable.
	td 1nmol 10/PK, Part Number 5061-3330	Not applicable.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	Not applicable.
Upper/lower flammability or explosive limits	: S arcosine	Not available.
	L-Tryptophan	Not available.
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	Not available.
	Dithiodipropionic, Part Number 5062-2479	Not available.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Lower: 4.4%
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Upper: 16%
	AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
	td 1nmol 10/PK, Part Number 5061-3330	Not available.
	AA, standard 250PMOL 10/PK, Part Number	Not available.

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SECTION 9: Physical and chemical properties

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Vapour pressure

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

Vapour density

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

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SECTION 9: Physical and chemical properties

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

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SECTION 9: Physical and chemical properties

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

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SECTION 9: Physical and chemical properties

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

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SECTION 9: Physical and chemical properties

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

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: <input checked="" type="checkbox"/> Sarcosine	No specific test data related to reactivity available for this product or its ingredients.
	L-Tryptophan	No specific test data related to reactivity available for this product or its ingredients.
	L-Norvaline	No specific test data related to reactivity available for this product or its ingredients.
	L-Glutamine	No specific test data related to reactivity available for this product or its ingredients.
	L-Asparagine	No specific test data related to reactivity available for this product or its ingredients.
	L-4-Hydroxyproline	No specific test data related to reactivity available for this product or its ingredients.
	Dithiodipropionic, Part Number 5062-2479	No specific test data related to reactivity available for this product or its ingredients.
	Fmoc reagent 10 ampoules 1ml ea for	No specific test data related to reactivity available for this product or its ingredients.

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SECTION 10: Stability and reactivity

AAA, Part Number 5061-3337	No specific test data related to reactivity available for this product or its ingredients.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No specific test data related to reactivity available for this product or its ingredients.
AA, std 10pmol 10/PK, Part Number 5061-3334	No specific test data related to reactivity available for this product or its ingredients.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific test data related to reactivity available for this product or its ingredients.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific test data related to reactivity available for this product or its ingredients.
td 1nmol 10/PK, Part Number 5061-3330	No specific test data related to reactivity available for this product or its ingredients.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

: Sarcosine	Under normal conditions of storage and use, hazardous reactions will not occur.
L-Tryptophan	Under normal conditions of storage and use, hazardous reactions will not occur.
L-Norvaline	Under normal conditions of storage and use, hazardous reactions will not occur.
L-Glutamine	Under normal conditions of storage and use, hazardous reactions will not occur.
L-Asparagine	Under normal conditions of storage and use, hazardous reactions will not occur.
L-4-Hydroxyproline	Under normal conditions of storage and use, hazardous reactions will not occur.
Dithiodipropionic, Part Number 5062-2479	Under normal conditions of storage and use, hazardous reactions will not occur.
Fmoc reagent 10	Under normal conditions of storage and use, hazardous reactions will not occur.

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SECTION 10: Stability and reactivity

ampoules 1ml ea for AAA, Part Number 5061-3337	reactions will not occur.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Under normal conditions of storage and use, hazardous reactions will not occur.
AA, std 10pmol 10/PK, Part Number 5061-3334	Under normal conditions of storage and use, hazardous reactions will not occur.
AA, std 25pmol 10/PK, Part Number 5061-3333	Under normal conditions of storage and use, hazardous reactions will not occur.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Under normal conditions of storage and use, hazardous reactions will not occur.
td 1nmol 10/PK, Part Number 5061-3330	Under normal conditions of storage and use, hazardous reactions will not occur.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid	:	<p>Sarcosine</p> <p>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.</p> <p>L-Tryptophan</p> <p>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.</p> <p>L-Norvaline</p> <p>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.</p> <p>L-Glutamine</p> <p>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.</p> <p>L-Asparagine</p> <p>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.</p> <p>L-4-Hydroxyproline</p> <p>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.</p> <p>Dithiodipropionic, Part Number 5062-2479</p> <p>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.</p>
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SECTION 10: Stability and reactivity

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.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No specific data.
AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
AA, std 25pmol 10/PK, Part Number 5061-3333	No specific data.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
td 1nmol 10/PK, Part Number 5061-3330	No specific data.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.

10.5 Incompatible materials

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

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		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
10.6 Hazardous decomposition products	: Sarcosine	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	L-Tryptophan	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	L-Norvaline	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	L-Glutamine	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	L-Asparagine	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	L-4-Hydroxyproline	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Dithiodipropionic acid, Part Number 5062-2479	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Fmoc Reagent, Part Number 5061-3337	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	OPA Reagent, Part Number 5061-3335	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Amino Acid Standard- 10 pmol/ ul in 0.1 N HCL Solution, Part Number 5061-3334	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Amino Acid Standard- 25 pmol/ul in 0.1N HCL Solution, Part Number 5061-3333	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Amino Acid Standard - 100pmol/ul 0.1 HCL Solution, Part Number 5061-3332	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Amino Acid Standard- 1nmol/ul in 0.1 N HCL Solution, Part Number 5061-3330	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Amino Acid Standard - 250 pmol/ul in 0.1 N HCL Solution, Part Number 5061-3331	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

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Product/ingredient name	Result	Species	Dose	Exposure
L-Tryptophan L-Tryptophan	LD50 Oral	Rat	>16 g/kg	-
L-Glutamine Levoglutamide	LD50 Oral	Rat	7500 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	-
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide 3-Mercaptopropionic acid Methanol	LD50 Oral	Rat	273 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
Potassium thiocyanate	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LD50 Oral	Rat	854 mg/kg	-

Acute toxicity estimates

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
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	-
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	-

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	Eyes - Moderate irritant Skin - Moderate irritant	Rabbit Rabbit	- -	milligrams 40 milligrams 24 hours 20 milligrams	- -
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Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

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

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

Sarcosine	Not available.
L-Tryptophan	Not available.
L-Norvaline	Not available.
L-Glutamine	Not available.
L-Asparagine	Not available.
L-4-Hydroxyproline	Not available.
Dithiodipropionic, Part Number 5062-2479	Routes of entry anticipated: Oral, Dermal, Inhalation.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Routes of entry anticipated: Oral, Dermal, Inhalation.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Routes of entry anticipated: Oral, Dermal, Inhalation.
AA, std 10pmol 10/PK, Part Number 5061-3334	Not available.
AA, std 25pmol 10/PK, Part Number 5061-3333	Not available.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	Not available.
td 1nmol 10/PK, Part Number 5061-3330	Not available.

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AA, standard 250PMOL 10/PK, Part Number 5061-3331 Not available.

Potential acute health effects

Inhalation

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

Ingestion

: Sarcosine	No known significant effects or critical hazards.
L-Tryptophan	No known significant effects or critical hazards.
L-Norvaline	No known significant effects or critical hazards.
L-Glutamine	No known significant effects or critical hazards.
L-Asparagine	No known significant effects or critical hazards.
L-4-Hydroxyproline	No known significant effects or critical hazards.
Dithiodipropionic, Part Number 5062-2479 Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No known significant effects or critical hazards. Harmful if swallowed.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Harmful if swallowed. Corrosive to the digestive tract. Causes burns.
AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
AA, std 25pmol 10/PK,	May cause burns to mouth, throat and stomach.

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	Part Number 5061-3333 AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
Skin contact	: <input checked="" type="checkbox"/> Sarcosine	No known significant effects or critical hazards.
	L-Tryptophan	No known significant effects or critical hazards.
	L-Norvaline	No known significant effects or critical hazards.
	L-Glutamine	No known significant effects or critical hazards.
	L-Asparagine	No known significant effects or critical hazards.
	L-4-Hydroxyproline	No known significant effects or critical hazards.
	Dithiodipropionic, Part Number 5062-2479	Causes skin irritation.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Harmful in contact with skin.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Causes severe burns. May cause an allergic skin reaction.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	Corrosive to the skin. Causes burns.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
Eye contact	: <input checked="" type="checkbox"/> Sarcosine	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
	L-Tryptophan	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
	L-Norvaline	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
	L-Glutamine	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
	L-Asparagine	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
	L-4-Hydroxyproline	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
	Dithiodipropionic, Part Number 5062-2479	Causes serious eye irritation.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	Causes serious eye irritation.
	OPA reagent, 10 mg/ml,	Causes serious eye damage.

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6 ampoules, Part Number 5061-3335	
AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
AA, std 25pmol 10/PK, Part Number 5061-3333	Corrosive to eyes. Causes burns.
AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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

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Ingestion	:	<input checked="" type="checkbox"/> Sarcosine	No specific data.
		L-Tryptophan	No specific data.
		L-Norvaline	No specific data.
		L-Glutamine	No specific data.
		L-Asparagine	No specific data.
		L-4-Hydroxyproline	No specific data.
		Dithiodipropionic, Part Number 5062-2479	No specific data.
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No specific data.
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Adverse symptoms may include the following: stomach pains
		AA, std 10pmol 10/PK, Part Number 5061-3334	No specific data.
		AA, std 25pmol 10/PK, Part Number 5061-3333	Adverse symptoms may include the following: stomach pains
		AA, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
td 1nmol 10/PK, Part Number 5061-3330	No specific data.		
AA, standard 250PMOL 10/PK, Part Number 5061-3331	No specific data.		
Skin contact	:	<input checked="" type="checkbox"/> Sarcosine	No specific data.
		L-Tryptophan	No specific data.
		L-Norvaline	No specific data.
		L-Glutamine	No specific data.
		L-Asparagine	No specific data.
		L-4-Hydroxyproline	No specific data.
		Dithiodipropionic, Part Number 5062-2479	Adverse symptoms may include the following: irritation redness
		Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No specific data.
		OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	Adverse symptoms may include the following: pain or irritation redness blistering may occur
		AA, std 10pmol 10/PK, Part Number 5061-3334	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, standard 100PMOL 10/PK, Part Number 5061-3332	No specific data.
td 1nmol 10/PK, Part Number 5061-3330	No specific data.		
AA, standard 250PMOL	No specific data.		

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

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

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Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

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

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

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Developmental effects	: <input checked="" type="checkbox"/> Sarcosine	No known significant effects or critical hazards.
	L-Tryptophan	No known significant effects or critical hazards.
	L-Norvaline	No known significant effects or critical hazards.
	L-Glutamine	No known significant effects or critical hazards.
	L-Asparagine	No known significant effects or critical hazards.
	L-4-Hydroxyproline	No known significant effects or critical hazards.
	Dithiodipropionic, Part Number 5062-2479	No known significant effects or critical hazards.
	Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	No known significant effects or critical hazards.
	OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335	No known significant effects or critical hazards.
	AA, std 10pmol 10/PK, Part Number 5061-3334	No known significant effects or critical hazards.
	AA, std 25pmol 10/PK, Part Number 5061-3333	No known significant effects or critical hazards.
	AA, standard 100PMOL 10/PK, Part Number 5061-3332	No known significant effects or critical hazards.
	td 1nmol 10/PK, Part Number 5061-3330	No known significant effects or critical hazards.
	AA, standard 250PMOL 10/PK, Part Number 5061-3331	No known significant effects or critical hazards.
	Fertility effects	: <input checked="" type="checkbox"/> Sarcosine
L-Tryptophan		No known significant effects or critical hazards.
L-Norvaline		No known significant effects or critical hazards.
L-Glutamine		No known significant effects or critical hazards.
L-Asparagine		No known significant effects or critical hazards.
L-4-Hydroxyproline		No known significant effects or critical hazards.
Dithiodipropionic, Part Number 5062-2479		No known significant effects or critical hazards.
Fmoc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337		No known significant effects or critical hazards.
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335		No known significant effects or critical hazards.
AA, std 10pmol 10/PK, Part Number 5061-3334		No known significant effects or critical hazards.
AA, std 25pmol 10/PK, Part Number 5061-3333		No known significant effects or critical hazards.
AA, standard 100PMOL 10/PK, Part Number 5061-3332		No known significant effects or critical hazards.
td 1nmol 10/PK, Part Number 5061-3330		No known significant effects or critical hazards.
AA, standard 250PMOL 10/PK, Part Number 5061-3331		No known significant effects or critical hazards.
Other information		: <input checked="" type="checkbox"/> Sarcosine
	L-Tryptophan	Not available.
	L-Norvaline	Not available.
	L-Glutamine	Not available.
	L-Asparagine	Not available.
	L-4-Hydroxyproline	Not available.
	Dithiodipropionic, Part	Not available.

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

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	Acute IC50 3685000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 3600000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 1000000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 160000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 Potassium hydroxide boric acid	Acute LC50 80 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute LC50 45.5 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
3-Mercaptopropionic acid	Acute LC50 133000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 75 mg/l Marine water	Fish - Pagrus major	96 hours
	Chronic NOEC 6000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute EC50 9 mg/l Fresh water	Daphnia	48 hours
Methanol	Acute LC50 15 mg/l Fresh water	Fish	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Phthalaldehyde	Acute LC50 290 mg/l Fresh water	Fish - Danio rerio - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 184 ppb Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
Potassium thiocyanate	Acute EC50 90 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 20 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 11000 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 13.3 mg/l Fresh water	Fish - Salvelinus fontinalis	96 hours
	Chronic NOEC 1100 µg/l Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling,	124 days

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SECTION 12: Ecological information

Weanling)

12.2 Persistence and degradability

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

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
L-Tryptophan L-Tryptophan	-	-	Readily
FMOG reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Acetonitrile	-	-	Readily
OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 boric acid	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Sarcosine Sarcosine	-2.78	-	low
Sarcosine	-2.78	-	low
L-Tryptophan L-Tryptophan	-1.06	-	low
L-Tryptophan	-1.06	-	low
L-Norvaline Norvaline	-2.11	-	low
Norvaline	-2.11	-	low
L-Glutamine Levoglutamide	-3.64	-	low
Levoglutamide	-3.64	-	low
L-Asparagine Asparagine	-3.82	-	low
Asparagine	-3.82	-	low
L-4-Hydroxyproline L-4-Hydroxyproline	-3.17	-	low
L-4-Hydroxyproline	-3.17	-	low
FMOG reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 FMOG reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337	<1	-	low

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Acetonitrile	-0.34	3	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

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.

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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport 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.

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

Other EU regulations

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

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

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.

Danger criteria

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SECTION 15: Regulatory information

Category

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

P5c

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

E2

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Europe	: All components are listed or exempted.
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	: <input checked="" type="checkbox"/> All components are listed or exempted.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: <input checked="" type="checkbox"/> 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]

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SECTION 16: Other information

Classification	Justification
<p>Dithiodipropionic, Part Number 5062-2479 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335</p>	<p>Expert judgment Expert judgment Expert judgment</p>
<p>FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319</p>	<p>On basis of test data Calculation method Calculation method Calculation method Calculation method</p>
<p>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</p>	<p>Calculation method Calculation method Calculation method Calculation method</p>
<p>AA, std 10pmol 10/PK, Part Number 5061-3334 Met. Corr. 1, H290</p>	<p>Expert judgment</p>
<p>AA, std 25pmol 10/PK, Part Number 5061-3333 Met. Corr. 1, H290</p>	<p>Expert judgment</p>
<p>AA, standard 100PMOL 10/PK, Part Number 5061-3332 Met. Corr. 1, H290</p>	<p>Expert judgment</p>
<p>td 1nmol 10/PK, Part Number 5061-3330 Met. Corr. 1, H290</p>	<p>Expert judgment</p>
<p>AA, standard 250PMOL 10/PK, Part Number 5061-3331 Met. Corr. 1, H290</p>	<p>Expert judgment</p>

Full text of abbreviated H statements

<p>Dithiodipropionic, Part Number 5062-2479 H315 H319 H335</p>	<p>Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.</p>
<p>FMOc reagent 10 ampoules 1ml ea for AAA, Part Number 5061-3337 H225 H302 H312 H319 H332</p>	<p>Highly flammable liquid and vapour. Harmful if swallowed. Harmful in contact with skin. Causes serious eye irritation. Harmful if inhaled.</p>
<p>OPA reagent, 10 mg/ml, 6 ampoules, Part Number 5061-3335 H225 H290 H301 H302 H311 H312 H314 H315 H317 H318</p>	<p>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.</p>

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SECTION 16: Other information

H331 H332 H335 H360FD H370 H400 H410 H411 H412	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.
AA, std 10pmol 10/PK, Part Number 5061-3334 H290	May be corrosive to metals.
AA, std 25pmol 10/PK, Part Number 5061-3333 H290	May be corrosive to metals.
AA, standard 100PMOL 10/PK, Part Number 5061-3332 H290	May be corrosive to metals.
td 1nmol 10/PK, Part Number 5061-3330 H290	May be corrosive to metals.
AA, standard 250PMOL 10/PK, Part Number 5061-3331 H290	May be corrosive to metals.

[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
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
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 Skin Corr. 1A, H314 Skin Corr. 1B, H314	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 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) 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 CORROSION/IRRITATION - Category 1A SKIN CORROSION/IRRITATION - Category 1B

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Skin Irrit. 2, H315 Skin Sens. 1, H317 Skin Sens. 1A, H317 STOT SE 1, H370 STOT SE 3, H335 AA, std 10pmol 10/PK, Part Number 5061-3334 Met. Corr. 1, H290 AA, std 25pmol 10/PK, Part Number 5061-3333 Met. Corr. 1, H290 AA, standard 100PMOL 10/PK, Part Number 5061-3332 Met. Corr. 1, H290 td 1nmol 10/PK, Part Number 5061-3330 Met. Corr. 1, H290 AA, standard 250PMOL 10/PK, Part Number 5061-3331 Met. Corr. 1, H290	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 CORROSIVE TO METALS - Category 1 CORROSIVE TO METALS - Category 1 CORROSIVE TO METALS - Category 1 CORROSIVE TO METALS - Category 1 CORROSIVE TO METALS - Category 1
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