

# Safety Data Sheet

## AUTOZYME™ / MELISA™ Products

### 1. IDENTIFICATION OF THE SUBSTANCES / PREPARATIONS

Code	MELISA™	Calibrators (Standards) / controls	Conjugate concentrate	4M Sulphuric acid	Substrate OPD*	Sample diluent PBS* / BSA	Substrate buffer PBS*	Conjugate diluent PBS* / BSA	Wash buffer conc PBS*	Coated micropins
M4196	nDNA									
M4296	nDNA IgG									
M9096	RF (all classes)									

Code	MELISA™	Calibrators (Standards)	Conjugate in PBS* / BSA	Stop solution oxalic acid*	Stop solution αβUCC*	Substrate TMB*	Sample diluent PBS* / BSA	Wash buffer conc PBS*	Coated micropins
M2196	TAB Anti-Tg								
M2396	TAB Anti-TPO								
M2496	TAB Combined anti-Tg/TPO								
M4596A	ACL IgG								
M4696A	ACL IgM								
M4796A	ACL IgG/IgM								

OPD = o-phenylenediamine dihydrochloride  
 TMB = 3,3',5,5'-tetramethylbenzidine  
 PBS = phosphate buffered saline  
 BSA = bovine serum albumin  
 αβUCC = alpha, beta unsaturated carbonyl compound

\*Concentration below lower limit of CHIP hazard classification

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Code	AUTOZYME™	Calibrators (Standards) / controls	Conjugate in PBS* / BSA	Stopping buffer oxalic acid*	Stopping buffer EDTA* / NaOH*	Substrate ABTS*	Substrate PPMP*	Sample diluent PES* / BSA	Wash buffer conc PBS*	Coated microwells
<b>AUTOZYME™ ENA</b>										
Z1000	Bulk pack									
Z1100	Anti-Ro									
Z1200	Anti-La									
Z1300	Anti-Sm									
Z1400	Anti-Sm/RNP									
Z1500	Anti-Jo-1									
Z1600	Anti-Scl-70									
Z3000	Screen 4									
Z3100	Screen 6									
<b>AUTOZYME™ TAB</b>										
Z2196	Anti-Tg									
Z2396	Anti-TPO									
<b>AUTOZYME™ DNA</b>										
Z4196	Anti-nDNA									
<b>AUTOZYME™ IFAB</b>										
Z4396	Anti-Intrinsic factor									
<b>AUTOZYME™ ACL</b>										
Z4496	Anti-CL IgA									
Z4596	Anti-CL IgG									
Z4696	Anti-CL IgM									
Z4796	Anti-CL Screen									
<b>AUTOZYME™ RF</b>										
Z9096	Rheumatoid factor Screen									
Z9196	Rheumatoid factor IgA									
Z9296	Rheumatoid factor IgM									
Z9396	Rheumatoid factor IgG									

ABTS = 2,2'-azino-bis(3-ethylbenzothiazoline-6-sulphonic) acid  
 PPMP = phenolphthalein monophosphate  
 PBS = phosphate buffered saline  
 BSA = bovine serum albumin  
 EDTA = ethylenediaminetetra-acetic acid  
 NaOH = sodium hydroxide (dilute)






Code	Miscellaneous	Cleaning solution*
DAS2077	DAS KLEEN	

\*Concentration below lower limit of CHIP hazard classification

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### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Key	Ingredient	Conc <sup>n</sup>	CHIP Number	CAS Number	EEC Number
	Human source material	Variable			
	Animal source material	Variable			
	Sulphuric acid	4 mol/L	016-020-00-8	7664-93-9	231-639-5
	o-Phenylenediamine dihydrochloride*	0.6%	612-028-00-6	615-28-1	210-418-7
	Sodium azide	0.1 - 0.9%	011-004-00-7	26628-22-8	247-852-1

Reagent preparations may contain other hazardous substances below lower limit of CHIP hazard classification

\*Concentration below lower limit of CHIP hazard classification

### 3. HAZARDS IDENTIFICATION

Animal or human source material	Material is potentially infectious Greatest risk is from contact with uncovered cuts or from contaminated sharps or broken glass
4M Sulphuric acid	Can cause severe burns Harmful if swallowed, inhaled or absorbed through skin Destructive to tissue of mucous membranes and upper respiratory tract, eyes and skin
o-Phenylenediamine dihydrochloride (0.6%)	Harmful by inhalation, in contact with skin and if swallowed Irritating to tissue of mucous membranes and upper respiratory tract, eyes and skin May cause sensitisation by skin contact
Sodium azide (0.1 - 0.9%)	Harmful if swallowed Irritating to eyes and skin May cause headache, irritability and gastric disturbance if ingested

All reagents should be treated as potentially hazardous

### 4. FIRST AID MEASURES

The following instructions apply to all reagents

Skin	Flush site of contact with running water until all traces of reagent have been removed Sulphuric acid - continue flushing for at least 15 minutes
Eyes	Flush eyes with running water - ensure adequate flushing of the eyes by separating the eyelids with fingers if necessary Sulphuric acid - continue flushing for at least 15 minutes - transfer to hospital for detailed eye examination as soon as possible
Ingestion	Wash out mouth with water - seek medical advice immediately (show the label where possible)
Inhalation	Remove to fresh air

### 5. FIRE FIGHTING MEASURES

Water, CO<sub>2</sub>, foam or dry powder may be used

### 6. ACCIDENTAL RELEASE MEASURES

Assays should be performed in a suitable containment tray or on absorbent sheeting, e.g. Benchkote®

Spillages should be mopped up with paper towels and waste incinerated

Wash site of spill with detergent and water

See 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

See 12. ECOLOGICAL INFORMATION

See 13. DISPOSAL CONSIDERATIONS

### 7. HANDLING AND STORAGE

Do not eat, drink or smoke when handling reagents and samples

Wash hands thoroughly after handling reagents and samples

Refer to instruction leaflet and labeling for storage conditions

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#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Do not pipette by mouth  
Ensure skin cuts are covered with a plaster  
Avoid contact with skin, eyes and clothing  
Use only in a designated laboratory  
Do not eat, drink or smoke in the laboratory  
Store used sharps and pipette tips in a suitable container, e.g. Cin-Bin®  
Wear chemical resistant gloves, safety glasses or goggles and a laboratory coat

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Animal or human source material	Diluted in aqueous buffer solution or constituent of lyophilised material Coated onto plastic micropins or microwells (solid phase)
Sulphuric acid	Colourless liquid Mol. Wt. 98.08
<i>o</i> -Phenylenediamine dihydrochloride	Constituent of tablet (SELISA) or lyophilised material (MELISA) Tablet soluble in water (pH 5.2) Mol. Wt. 108.14
Sodium azide	Diluted in aqueous buffer solution or constituent of lyophilised material Mol. Wt. 65.01

#### 10. STABILITY AND REACTIVITY

Sulphuric acid	Do not add water Avoid contact with bases, halides and metals
<i>o</i> -Phenylenediamine dihydrochloride	Avoid contact with oxidising materials Darkens on exposure to light and air
Sodium azide	Avoid contact with metals - toxic gas can be liberated at high concentrations

#### 11. TOXICOLOGICAL INFORMATION

<i>o</i> -Phenylenediamine dihydrochloride	May be carcinogenic
Sodium azide	May be mutagenic

#### 12. ECOLOGICAL INFORMATION

Not applicable

#### 13. DISPOSAL CONSIDERATIONS

Animal or human source material	Clinical waste - all biohazardous reagents, samples and plates must be incinerated Other reagents - dilute by adding to a large volume of water and flush down the drain
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#### 14. TRANSPORT INFORMATION

Sulphuric acid	IATA - class 8 (corrosive) - classified as "dangerous goods in excepted quantities"
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### AUTOZYME™ / MELISA™ Products

#### 15. REGULATORY INFORMATION

##### Symbols

4M Sulphuric acid		C	Corrosive
Sodium azide		Xn	Harmful

##### Risk Phrases

4M Sulphuric acid	R35	Causes severe burns
1.25M Sulphuric acid	R36/38	Irritating to eyes and skin
<i>o</i> -Phenylenediamine dihydrochloride (2.9%)	R22 R43	Harmful if swallowed May cause sensitisation by skin contact
Sodium azide	R28 R32	Very toxic if swallowed Contact with acids liberates very toxic gas

##### Safety Phrases

4M Sulphuric acid	S20 S36 S45	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice Never add water to this product In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
Sodium azide	S28 S45 S61	After contact with skin, wash with plenty of water In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible) Avoid release to the environment

##### European Directives

The information given in this Data Sheet and on product labeling complies with the requirements of the following European Directives:

67/548/EEC	Dangerous Substances
88/379/EEC	Dangerous Preparations
91/155/EEC	Safety Data Sheets
93/21/EEC	Chemicals (Hazard Information and Packaging for Supply) (as amended by 96/54/EEC)

##### US Regulations

All products are subject to regulation under the US Federal Food, Drug and Cosmetic Act  
All products are exempt from US Toxic Substances Control Act inventory listing requirements

##### Control of Substances Hazardous to Health (COSHH) Regulations

This information does not constitute an assessment of risk in the workplace, but may be used in such an assessment  
Risk assessments are the responsibility of the user and depend on local conditions of use

#### 16. OTHER INFORMATION

Products are for *in vitro* diagnostic use only  
Products are designed for professional use only - users must be appropriately trained to use these products  
Further technical advice is available from Cambridge Life Sciences

##### References

Approved Supply List (Information approved for the classification and labeling of substances and preparations dangerous for supply) (Health and Safety Commission)  
The Sigma-Aldrich Library of Chemical Safety Data (Sigma-Aldrich Corporation)