

Agilent G9531AA RapidFire 365 High-throughput Mass Spectrometry System

Safety Guide

For Research Use Only. Not for use in diagnostic procedures.

Instrumentation Safety	2
Symbols on instruments	2
General instrument safety	4
Physical hazard safety	5
Barcode scanner safety	6
Possible misuse of the RapidFire System	7
Chemical Safety	8
General chemical safety	8
Chemical waste safety	9
Conformity and Standards	10
Environmental operating ranges	10
Declaration of Conformity	10

This guides provides safety information for the RapidFire 365 High-throughput Mass Spectrometry System.

The system is framed as two levels. The left top level is enclosed with one BenchBot sample handler and four plate stacks, as well as the robotic stages and fluidic lines. The lower shelf includes a solvent tray and four fluidic pumps. The right lower level of the instrument is composed the electronics and instrument control computer. Keyboard, mouse, and monitor are placed on the top level on the right side of the instrument. The whole system is on one platform with casters, which enables the mobility of the system.



Agilent Technologies

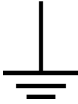


Instrumentation Safety

Symbols on instruments

Electrical symbols

The following table describes the electrical symbols that can be displayed on the RapidFire instrument.

Table 1 Electrical symbols

Symbol	Description
	This terminal may be connected to the signal ground reference of another instrument. This is not a safety grounding terminal.
	A safety grounding terminal that must be connected to earth ground before any other electrical connections are made to the instrument.
	A terminal that can receive or supply alternating current or voltage.

Safety symbols

The following table describes the safety symbols that can be displayed on the RapidFire instrument. Each symbol appears by itself or with text that explains the relevant hazard. These safety symbols can also appear next to DANGER, WARNING, or CAUTION.

Table 2 Safety symbols

Symbol	Description
	Consult the manual for further information, and then proceed with appropriate caution.
	Electrical shock hazard. Proceed with appropriate caution.
	Laser hazard.
	Moving parts. Proceed with appropriate caution.
	Do not step on this surface.
	Unplug power from outlet.
	Call for maintenance.

General instrument safety

WARNING

PHYSICAL INJURY HAZARD: Use the RapidFire instrument only as specified in the User Guide. Using the system in a manner not specified by Agilent Technologies can result in personal injury or damage to the instrument.

Moving or lifting the system

WARNING

PHYSICAL INJURY HAZARD: The RapidFire System platform can weigh between 320 kg (700 lbs) and 475 kg (1,045 lbs). ***Do not attempt to lift the RapidFire System.***

To move the RapidFire System, push the platform on its wheels.

When using the RapidFire System, keep its casters in a locked position.

Operating the instrument

Before you operate the instrument, make sure that you have:

- Been given instructions on general safety practices for laboratory and specific safety practices for the instrument.
- Read and understood all material safety data sheets (MSDS) for chemicals handled.

Physical hazard safety

Moving parts

WARNING

PHYSICAL INJURY HAZARD: Moving parts can crush, puncture, and cut. Keep hands clear of moving parts while operating the instrument and keep interlock doors closed.



Solvents

WARNING

PHYSICAL INJURY HAZARD: Always wear appropriate protection, including eye protection and gloves, when working with solvents and chemicals. Refer to the applicable MSDS for more information about the materials you are working with.

Electrical safety

WARNING

ELECTRICAL SHOCK HAZARD - Severe electrical shock can result from operating the RapidFire System without its power cords in place.



Grounding circuit continuity is required for the safe operation of equipment.

Use properly configured and approved line cords for the voltage supply in your facility.

WARNING

ELECTRICAL HAZARD - Plug the RapidFire System AC input power cords into properly grounded receptacles with adequate current capacity. The branch circuit over-current protection Circuit Breakers protecting the building receptacles must be rated no more than 20A.



WARNING

Be sure that the RapidFire System main supply cable is routed in such a way as to minimize the risk of a tripping hazard. Agilent Technologies recommends the use of mechanical protection, such as a rubberized cable guard on the floor to cover and protect the main supply cable.

WARNING

Make sure that the point at which the detachable power cords are connected to the RapidFire instrument is clear from clutter and that it is accessible at all times.

WARNING

This product contains an Uninterruptible Power Supply (UPS) that can produce hazardous voltages even when the main power cord is disconnected.

To remove hazardous voltages from each individual instrument, make sure its power cord is disconnected from the UPS.

Barcode scanner safety

The hand-held barcode scanner incorporated in the RapidFire System is a categorized as a Class 3R laser.

This Class 3R laser is a low-power, visible-light laser that is not hazardous when used according to instructions. Do not stare directly at the laser light.

Possible misuse of the RapidFire System

WARNING

Take care to avoid the following situations:

Do not work inside the RapidFire System unit without first disconnecting the all power supply cables, UPS, power strip, and/or LOTO.

Do not sit or stand on the phenolic tabletop of the RapidFire System platform.

Do not operate the RapidFire System instrument unless its wheels are locked in the brake position.

The RapidFire System unit is intended for use indoors, in a non-explosive, laboratory environment, as stipulated in “Instrumentation Safety” on page 2.

Do not modify, remove, alter, or change the machine in any way (electrically or mechanically). Any modifications to the RapidFire System unit will void the warranty and the CE compliance of the instrument.

Do not use any substance, chemical, solvent, solution, or any other material with or in the RapidFire System machine, unless you have read and understood, and are able to comply with their material safety data sheets (MSDS).

Chemical Safety

General chemical safety

WARNING

CHEMICAL HAZARD: Before handling any chemicals, refer to the Material Safety Data Sheet (MSDS) provided by the manufacturer, and observe all relevant precautions.

To minimize the hazards of chemicals:

- Read and understand the MSDS provided by the manufacturer before you store, handle, or work with any chemicals or hazardous materials.
- Minimize contact with chemicals. Wear appropriate personal protective equipment when handling chemicals (for example, safety glasses, gloves, or protective clothing).
- Minimize the inhalation of chemicals. Do not leave chemical containers open. Use only with adequate ventilation (for example, fume hood).
- Check regularly for chemical leaks or spills. If either of those occur, follow the cleanup procedures from the manufacturer, as recommended in the MSDS.
- Comply with all local, state/provincial, or national laws and regulations related to chemical storage, handling, and disposal.

Chemical waste safety

CAUTION

HAZARDOUS WASTE: Refer to Material Safety Data Sheets and local regulations for handling and disposal.

WARNING

CHEMICAL WASTE HAZARD: Wastes produced by the RapidFire System instrument are potentially hazardous and can cause injury, illness, or death.

To minimize the hazards of chemical waste:

- Read and understand the MSDS provided by the manufacturers of the chemicals in the waste container before you store, handle, or dispose of chemical waste.
- Provide primary and secondary waste containers. Both containers must be compatible with the waste material and meet federal, state/provincial, and local requirements for container storage.
- Minimize contact with chemicals. Wear appropriate personal protective equipment when handling chemicals (for example, safety glasses, gloves, or protective clothing).
- Minimize the inhalation of chemicals. Do not leave chemical containers open.
- Handle chemical wastes in a fume hood.
- After emptying a waste container, seal it with the cap provided.
- Dispose of the contents of the waste tray and waste bottle in accordance with good laboratory practices and local, state / provincial, or national environmental and health regulations.
- Ensure that the RapidFire System waste is stored, transferred, transported, and disposed of according to all local, state / provincial, and/or national regulations.

Conformity and Standards

Environmental operating ranges



Use the RapidFire System at the following conditions:

- **Pollution degree:** 2
- **Installation category:** II
- **Temperature:** 4°C to 35°C
- **Relative humidity:** 20% to 90%, non-condensing
- **Environment:**
 - non-explosive surroundings
 - indoor use only
 - laboratories use only
- **Altitude:** 2000 meters

Recorded noise level for the RapidFire System unit is below 70 dbA

Declaration of Conformity

The Declaration of Conformity (in English) for the RapidFire 365 High-throughput Mass Spectrometry System is shown on the next page.

 Agilent Technologies	DECLARATION OF CONFORMITY According to EN ISO/IEC 17050-1: 2010 (EN)	
---	--	---

Manufacturer's Name: Agilent Technologies Singapore (International) Pte. Ltd.
Manufacturer's Address: 1, Yishun Avenue 7,
 Singapore 768923

Declares under sole responsibility that the product as originally delivered

Product Name & Function: RapidFire 365 System
Model & Part Numbers: G9531AA
Product Options: This declaration covers all options of the above product
Serial Number(s) SGYYWWM0NN (YY=17-99, WW=01-53, NN=00-99)

complies with the essential requirements of the following applicable European Directives, and carries the CE marking accordingly:

EMC Directive 2014/30/EU
 Machinery Directive 2006/42/EC
 RoHS Directive 2011/65/EU

and conforms with the following product standards:


EMC: IEC 61326-1:2012 / EN 61326-1:2013
Safety: IEC 61010-1:2001 / EN 61010-1:2001
 IEC 61010-2-081:2001 / EN 61010-2-081:2002
Other: EN 50581:2012

Contact established in the Community authorized to compile the technical file or the relevant technical documents:

Agilent Technologies Deutschland GmbH
 Hewlett-Packard-Strasse 8
 76337 Waldbronn
 Germany

Supplementary Information:

The products were tested in a typical configuration with Agilent Technologies test systems
 This DoC applies to above-listed products placed on the EU market after:

4/25/2017	Santa Clara, CA	
Date	Location	Kevin Draper Quality Manager

For more information, please contact your local Agilent Technologies sales office, agent or distributor.

www.agilent.com

*For Research Use Only. Not
for use in diagnostic
procedures.*

Instrument Manufacturing



Manufactured by Agilent Technolo-
gies Singapore Pte. Ltd. No. 1 Yishun
Avenue 7, Singapore 768923

© Agilent Technologies, Inc. 2017

Revision A, August 2017



G9531-90004
Original instructions (EN)



Agilent Technologies