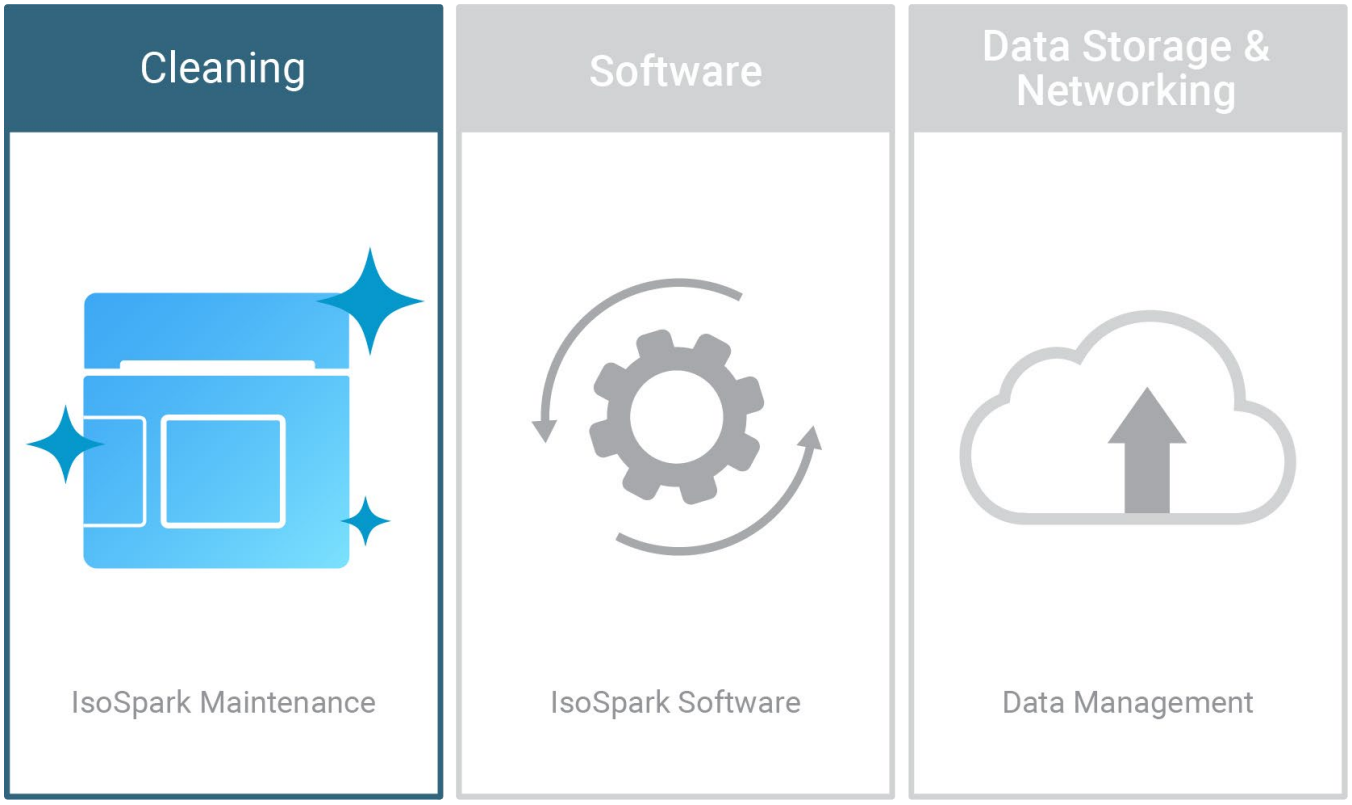
IsoSpark Reusable Cleaning Cartridge Protocol

CRITICAL: Please read and follow this protocol precisely. Failure to do so could result in damage to your instrument.

LEGAL DISCLAIMER: BRUKER IS NOT RESPONSIBLE FOR ANY INSTRUMENT DAMAGE THAT MAY RESULT FROM FAILURE TO PROPERLY FOLLOW THIS PROTOCOL.



Key: ● TIP, ● CRITICAL, ● OPTIONAL

Contents

A. Overview

1. Safety Warnings

-Read MSDS documents of all materials prior to use.

-Laboratory workers should wear standard PPE, including disposable gloves, protective eyewear, and laboratory coats.

2. IsoSpark Cleaning Types and Required Frequencies

Maintenance Type	Frequency
Maintenance Clean	Every 2 weeks Timer resets after each 4-chip run or cleaning run
Deep Clean	Once a month

IsoSpark Maintenance Clean

The maintenance clean takes 1.5 hours to complete and should be performed once every 2 weeks. This 2-week timer is reset by a 4-chip run or cleaning run.

IsoSpark Deep Clean

The instrument deep clean takes 3.5 hours to complete and should be performed monthly.

3. Required Reagents, Consumables and Equipment

Reusable Cleaning Kit Components Available from Bruker

Product Name	Components	Catalog Number
IsoSpark Reusable Cleaning Kit	Reusable IsoSpark Cartridge Cartridge Stand	S-ISOCODE-1701-4
IsoCode Reusable Cleaning Chips	4x cleaning chips	ISOCODE-1800-4

Required Consumables Not Supplied by Bruker

Equipment	Comments
Sodium Hypochlorite Solution	Must be 0.1% or greater. Must be laboratory-grade purity
Water	Must be laboratory-grade purity
Serological Pipette	50 mL Pipette

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Required Equipment

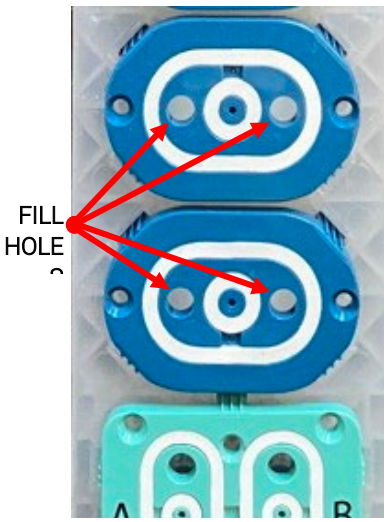
Equipment	Source	Catalog Number
IsoSpark or IsoSpark Duo	Bruker	ISOSPARK-1000-1 or ISOSPARK-1001-1

C. Protocol

Procedure (Maintenance Clean and Deep Clean)

- NOTE: Please note that reusable cleaning cartridges are only compatible with IsoSpark software version 1.10.3 or later. Please update your IsoSpark software before using reusable cleaning cartridges

1. Insert IsoSpark Cartridge Stand (430-00640-01) between R5 and Waste as shown below. Stand should be centered in the cartridge.



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- NOTE: Reagents are labeled on the top of the cartridge on the clear portion next to the blue caps, see below for labeled reagents.

2. Prepare laboratory grade 0.1% sodium hypochlorite solution using laboratory-grade water, ensuring that the final volume of the solution is at least 50 mL. See table below.

Stock Sodium Hypochlorite %	Sodium Hypochlorite Volume (mL)	Lab Grade Water Volume (mL)
5.0	1.025	50
6.0	0.850	50
7.0	0.725	50
8.25	0.615	50
10	0.500	50
12.5	0.405	50

- WARNING: It is critical the lab-grade sodium hypochlorite solution is 0.1%.

2.1. Mix by pipetting the solution up and down 3-4 times.

3. Fill Reagent 3 through the fill holes (pictured in step 1), with 45 mL of the prepared 0.1% laboratory grade sodium hypochlorite solution using a 50 mL serological pipette. This reagent is labeled WITH CORROSIVE STICKERS (pictured).

- WARNING: Lab-Grade Sodium hypochlorite should ONLY be dispensed in Reagent 3, labeled with corrosive stickers.

4. Fill Reagent 5 through the fill holes (pictured in step 1), with 45 mL of laboratory-grade water using a new 50 mL serological pipette. This reagent is not labeled with a corrosive sticker.

5. Fill Reagent 4 through the fill holes (pictured in step 1), with 70 mL of laboratory-grade water using the same 50 mL serological pipette as previous step. This reagent is not labeled with a corrosive sticker.

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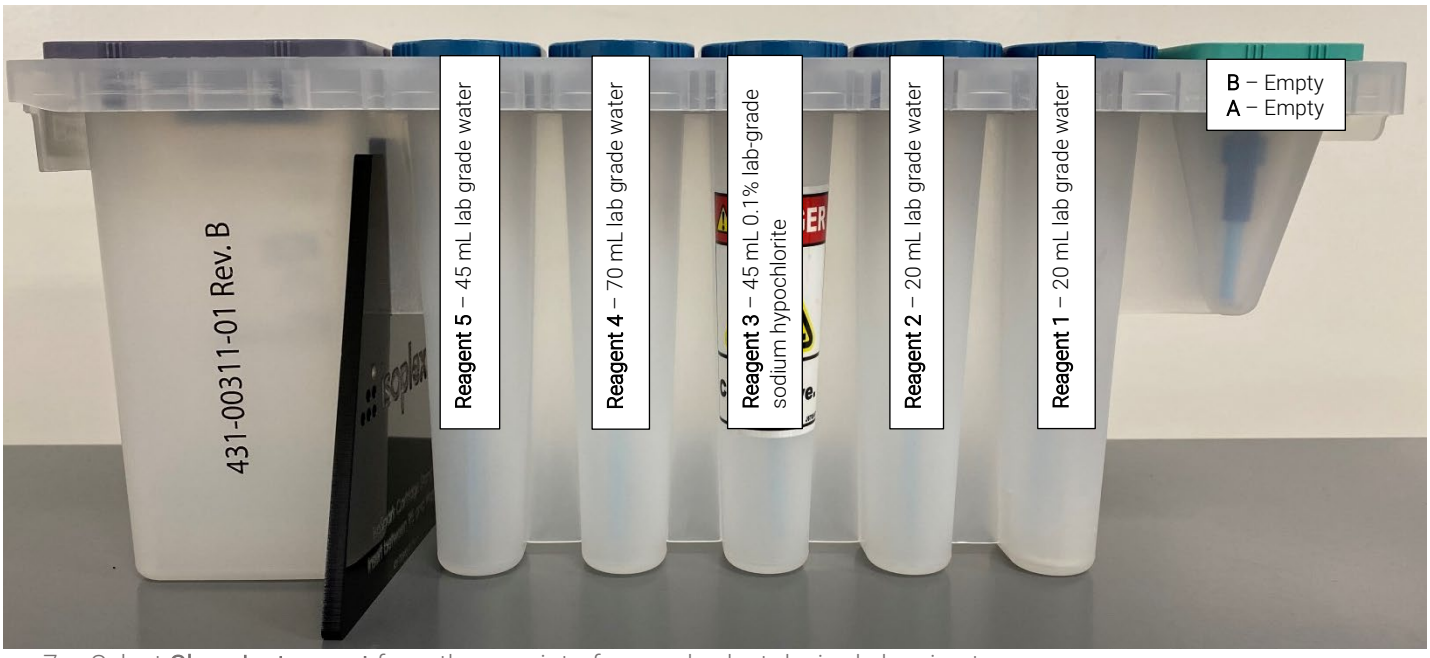
6. Fill Reagent 1 and Reagent 2 through the fill holes (pictured in step 1), with 20 mL of laboratory-grade water in each tube using the same 50 mL serological pipette as previous step. These reagents are not labeled with corrosive stickers.



7. Select **Clean Instrument** from the user interface and select desired cleaning type.
8. Remove IsoSpark Cartridge Stand and follow the on-screen prompts to insert Reusable Cleaning Cartridge and Reusable Cleaning Chips to begin the cleaning run.
9. Wait for completion and proceed according to on-screen messages.
10. Carefully remove cartridge and empty waste per laboratory protocols. Waste can be dumped directly out of cartridge or pulled out with syringe or serological pipette.
11. Carefully remove the cleaning chips from the instrument by pressing the **Open Chip Tray** button. Store appropriately. Press **Close Chip Tray** button after cleaning chips have been removed from the instrument.
12. Place cartridge back in original box with Cartridge stand laying on top. Close box for storage.

- NOTE: Reusable Cleaning Cartridge lasts the duration of a year from first use! Do not dispose of cartridge or stand.
- TIP: In order to help keep track of the kit's lifespan, it is recommended to notate date of first use as kit components last up to 1 year.

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