



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

Revision date 07-May-2024

Revision Number 1

### 1. Identification

#### Product identifier

**Product Name** Iridium Standard: 10 µg/mL Ir in 2% HCl [100ml bottle]

#### Other means of identification

**Product Code(s)** 5190-8570

**Synonyms** None

#### Recommended use of the chemical and restrictions on use

**Recommended use** Reagents and Standards for Analytical Chemical Laboratory Use

**Restrictions on use** Not to be used for human or animal consumption

#### Details of the supplier of the safety data sheet

##### Supplier Address

Agilent Technologies, Inc.  
5301 Stevens Creek Blvd  
Santa Clara, CA 95051, USA

800-227-9770

**E-mail** pdl-msds\_author@agilent.com

#### Emergency telephone number

**Emergency Telephone**  
CHEMTREC®: 1-800-424-9300

### 2. Hazard(s) identification

#### Classification

Classified according to OSHA.

Corrosive to metals	Category 1
---------------------	------------

#### Hazards not otherwise classified (HNOC)

Not applicable

## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

**5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]**

**Revision date** 07-May-2024

### Label elements

#### **Warning**

#### **Hazard statements**

Classified according to OSHA.  
May be corrosive to metals



#### **Precautionary Statements - Prevention**

Keep only in original packaging

#### **Precautionary Statements - Response**

Absorb spillage to prevent material damage

#### **Precautionary Statements - Storage**

Store in corrosion resistant container with a resistant inner liner

### Other information

Causes mild skin irritation.

## **3. Composition/information on ingredients**

### Substance

Not applicable.

### Mixture

**Chemical nature** aqueous solution.

Chemical name	CAS No.	Weight-%	Trade secret
Hydrochloric acid	7647-01-0	0.1 - 1	*



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

**5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]**

**Revision date** 07-May-2024

### 4. First-aid measures

#### Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

#### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	Prolonged contact may cause redness and irritation.
-----------------	---

#### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically.
---------------------------	------------------------

### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
-------------------------------------	---

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
---------------------------------------	---

<b>Specific hazards arising from the chemical</b>	No information available.
---	---------------------------

#### **Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

<b>Special protective equipment and</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.
---	---



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

**5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]**

**Revision date** 07-May-2024

**precautions for fire-fighters** Use personal protection equipment.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

**Other information** Refer to protective measures listed in Sections 7 and 8.

#### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

### 7. Handling and storage

#### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.

#### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

### 8. Exposure controls/personal protection

#### Control parameters

#### Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
---------------	-----------	----------	-------



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

**5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]**

**Revision date** 07-May-2024

Hydrochloric acid 7647-01-0	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m <sup>3</sup> Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>
--------------------------------	----------------	--	--

### **Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

### **Appropriate engineering controls**

<b>Engineering controls</b>	Showers Eyewash stations Ventilation systems.
<b><u>Individual protection measures, such as personal protective equipment</u></b>	
<b>Eye/face protection</b>	Avoid contact with eyes. Wear safety glasses with side shields (or goggles).
<b>Hand protection</b>	Wear protective Neoprene™ gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear suitable gloves.
<b>Skin and body protection</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
<b>Environmental exposure controls</b>	Do not allow into any sewer, on the ground or into any body of water.
<b>General hygiene considerations</b>	Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

## **9. Physical and chemical properties**

### **Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Appearance</b>	Liquid
<b>Color</b>	colorless
<b>Odor</b>	Odorless
<b>Odor threshold</b>	No information available



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]

Revision date 07-May-2024

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
<hr/>		
<u>Other information</u>		
Explosive properties	No information available	
Oxidizing properties	No information available	
Softening point	No information available	
Molecular weight	No information available	
VOC content	No information available	
Liquid Density	No information available	
Bulk density	No information available	

### 10. Stability and reactivity

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	Exposure to air or moisture over prolonged periods.
<b>Incompatible materials</b>	Oxidizing agent.
<b>Hazardous decomposition products</b>	None known based on information supplied.



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]

Revision date 07-May-2024

### 11. Toxicological information

#### Information on likely routes of exposure

##### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Causes mild skin irritation.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

#### Symptoms related to the physical, chemical and toxicological characteristics

<b>Symptoms</b>	Prolonged contact may cause redness and irritation.
-----------------	---

#### Acute toxicity

##### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	99,999.00 mg/kg
ATEmix (dermal)	99,999.00 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-dust/mist)	99,999.00 mg/l
ATEmix (inhalation-vapor)	99,999.00 mg/l

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrochloric acid 7647-01-0	238 - 277 mg/kg ( Rat )	> 5010 mg/kg ( Rabbit )	= 1.68 mg/L ( Rat ) 1 h

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

<b>Skin corrosion/irritation</b>	No information available.
----------------------------------	---------------------------

<b>Serious eye damage/eye irritation</b>	No information available.
--	---------------------------

<b>Respiratory or skin sensitization</b>	No information available.
--	---------------------------



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

**5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]**

**Revision date** 07-May-2024

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**Other adverse effects** No information available.

**Interactive effects** No information available.

### 12. Ecological information

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

**Persistence and degradability** No information available.

**Bioaccumulation** There is no data for this product.

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Disposal methods

**Waste from residues/unused** Dispose of in accordance with local regulations. Dispose of waste in accordance with



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

**5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]**

**Revision date** 07-May-2024

**products** environmental legislation.  
**Contaminated packaging** Do not reuse empty containers.

### 14. Transport information

#### DOT

<b>UN number or ID number</b>	UN3264
<b>Extended proper shipping name</b>	Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid)
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	III
<b>Special Provisions</b>	IB3, T7, TP1, TP28
<b>DOT Marine Pollutant</b>	NP
<b>Description</b>	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid), 8, III
<b>Emergency Response Guide Number</b>	154

#### TDG

<b>UN number or ID number</b>	UN3264
<b>UN proper shipping name</b>	Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid)
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	III
<b>Special Provisions</b>	16
<b>Marine pollutant</b>	NP
<b>Description</b>	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid), 8, III

#### MEX

<b>UN number or ID number</b>	UN3264
<b>UN proper shipping name</b>	Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid)
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	III
<b>Technical Name</b>	Hydrochloric acid
<b>Description</b>	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid), 8, III
<b>Special Provisions</b>	223, 274

#### IATA

<b>UN number or ID number</b>	UN3264
<b>UN proper shipping name</b>	Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid)
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	III
<b>Technical Name</b>	Hydrochloric acid
<b>Description</b>	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid), 8, III
<b>Special Provisions</b>	A3, A803
<b>ERG Code</b>	8L



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

**5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]**

**Revision date** 07-May-2024

<b>IMDG</b>	Not regulated
<b>UN number or ID number</b>	UN3264
<b>UN proper shipping name</b>	Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid)
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	III
<b>EmS-No.</b>	F-A, S-B
<b>Special Provisions</b>	223, 274
<b>Marine pollutant</b>	NP
<b>Description</b>	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid), 8, III

### 15. Regulatory information

#### International Inventories

##### TSCA

LGC has not confirmed that the chemical substances in this product are on the TSCA Inventory, and LGC is distributing this product solely for use either in applications statutorily exempt from TSCA and regulated under other laws (e.g., FFDCA, FIFRA) or in research and development activities in accordance with the TSCA Inventory R&D exemption provided at 40 CFR 720.36. It is the end-user's responsibility to understand and follow the requirements that apply to its use of this product.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Hydrochloric acid	7647-01-0	Present	Active

\*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

<b>DSL/NDSL</b>	Contact supplier for inventory compliance status.
<b>EINECS/ELINCS</b>	Contact supplier for inventory compliance status.
<b>ENCS</b>	Contact supplier for inventory compliance status.
<b>IECSC</b>	Contact supplier for inventory compliance status.
<b>KECL</b>	Contact supplier for inventory compliance status.
<b>PICCS</b>	Contact supplier for inventory compliance status.
<b>AIIC</b>	Contact supplier for inventory compliance status.

#### **Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

**5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]**

**Revision date** 07-May-2024

**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Hydrochloric acid - 7647-01-0	1.0

#### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### **CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrochloric acid 7647-01-0	5000 lb	-	-	X

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
Hydrochloric acid 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ

### US State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water	-	-	X



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

**5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]**

**Revision date** 07-May-2024

7732-18-5			
Hydrochloric acid 7647-01-0	X	X	X

### U.S. EPA Label Information

**EPA Pesticide Registration Number** Not applicable

## 16. Other information

<b>NFPA</b>	<b>Health hazards</b> 3	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Special hazards -</b>
<b>HMIS</b>	<b>Health hazards</b> 3	<b>Flammability</b> 0	<b>Physical hazards</b> 0	<b>Personal protection</b> X

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### **Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation

### **Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

**Revision date**

07-May-2024

**Revision Note**

No information available.

**Disclaimer**

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No



## SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
OSHA HCS2012

**5190-8570 - Iridium Standard: 10 µg/mL Ir in 2% HCl  
[100ml bottle]**

**Revision date** 07-May-2024

---

warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

**End of Safety Data Sheet**