

**Safety Data Sheet**

Effective Date: March, 2020

Supersedes Date: March, 2020

*Xpert Flu/RSV XC; Xpert Xpress Flu; Xpert Flu+RSV Xpress  
Xpert Xpress Flu/RSV; Xpert Flu; Xpert Xpress SARS-COV-2***Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product Identifier**

**Product Name** Xpert Flu/RSV XC; Xpert Xpress Flu/RSV; Xpert Flu; Xpert Xpress Flu;  
Xpert Xpress SARS-COV-2

**Product Code** 900-0731; GXFLU/RSV-10; GXFLU/RSV-CE-10; XPRSFLU/RSV-CN-10;  
RXPFLU/RSV-10; XPRSFLU/RSV-CE-10; XPRSFLU/RSV-CE-120; RFLU/RSV-10;  
GXFLU-CE-10; XPRSFLU/RSV-10; XPRSFLU-10; 900-0878; 900-0883;  
XPRSARS-COV2-10; XPRSARS-COV2-CE-10

**1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against**

**Relevant identified use(s)** Laboratory use

**1.3 Details of the Supplier of the Safety Data Sheet**

**Manufacturer** Cepheid  
904 Caribbean Drive  
Sunnyvale, CA 94089  
United States  
www.cepheid.com  
US: techsupport@cepheid.com

**Telephone (General)** 1 (888) 838-3222 - US Option 2

**Telephone (General)** 1 (408) 541-4191 - Outside of the US

**Supplier** Cepheid AB  
Röntgenvägen 5  
SE-171 54 Solna  
Sweden  
www.cepheidinternational.com  
EU: support@cepheideurope.com

**Telephone (General)** +33 563 825 319  
Cepheid Holdings Pty Ltd  
23-27 Chaplin Drive  
Lane Cove West NSW 2066  
Australia  
www.cepheidinternational.com  
ANZ: TechSupportANZ@cepheid.com

**Telephone (Australia)** 1800 107 884

**1.4 Emergency Telephone Number**

**Manufacturer** 1 (800) 535-5053 - INFOTRAC - 24 hr Emergency

**Manufacturer** 1 (352) 323-3500 - Outside of the US

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**Section 2: Hazards Identification**

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**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

**2.1 Classification of the Substance or Mixture**

**CLP** The following SDS is for the final finished mixture product only as used in the laboratory. The product contains beads and reagents in the cartridge or in off-board containers. Exemptions for disclosing some component information are pursuant to CLP Article 1(5)(d) and 29 CFR 1910.1200(g)(2)(i)(C)(1)&(2).  
Not classified

**2.2 Label Elements**

**CLP**  
**Hazard Statements** No label element(s) required

**2.3 Other Hazards**

**CLP** According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.

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**UN GHS (Labeling Content Used on Products)**

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

**2.1 Classification of the Substance or Mixture**

**UN GHS** Acute Toxicity Oral 5  
Skin Mild Irritation 3  
Eye Mild Irritation 2B

**2.2 Label Elements**

**UN GHS**  
**WARNING**

**Hazard statements** Harmful if swallowed  
May be harmful in contact with skin  
Causes eye irritation

**Precautionary statements**

**Prevention** Wash hands thoroughly after handling.  
**Response** If skin irritation occurs: Get medical advice/attention.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.  
Call a POISON CENTER or doctor/physician if you feel unwell.

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According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous.

**United States (US)**

According to: OSHA 29 CFR 1910.1200 HCS

**2.1 Classification of the Substance or Mixture****OSHA HCS 2012**

Eye Mild Irritation 2B

**2.2 Label Elements****OSHA HCS 2012****Hazard statements**Harmful if swallowed  
May be harmful in contact with skin  
Causes eye irritation**Precautionary statements****Prevention**

Wash hands thoroughly after handling.

**Response**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.**2.3 Other Hazards****OSHA HCS 2012**

Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is not considered hazardous.

**Canada**

According to: WHMIS

**2.1 Classification of the Substance or Mixture****WHMIS**

Not classified

**2.2 Label Elements****WHMIS**

No label element(s) required.

**2.3 Other Hazards****WHMIS**

In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

**2.4 Other Information**

All other reagents, beads, and other constituents are at concentrations less than 1% in the mixture or not considered hazardous under US hazard communication regulations (29 CFR 1910.1200), EU directives for classification and labeling of substances or mixtures or the Global Harmonization System for classification and labeling of substances or mixtures.

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**Section 3: Composition/Information on Ingredients**

**3.1 Substances**

Material does not meet the criteria of a substance.

**3.2 Mixtures**

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Guanidine Thiocyanate	CAS: 593-84-0 EINECS: 209-812-1	10% - 20%	593 mg/kg	EU CLP: Acute Tox. 5, H302, H313, H320 UN GHS: Acute Tox. 5 (Orl); Skin Irrit. 3; Eye Irrit. 2B OSHA HCS 2012: Acute Tox. 5 (Orl); Eye Irrit. 2B	NDA

**Section 4: First Aid Measures**

**4.1 Description of first aid measures**

<b>Inhalation</b>	First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Move victim to fresh air. Administer oxygen if breathing is difficult. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Give artificial respiration if victim is not breathing.
<b>Skin</b>	First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing.
<b>Eye</b>	First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If swallowed, rinse mouth with water (only if the person is conscious) Do NOT induce vomiting. Do not use mouth-to-mouth method if victim ingested the substance. Obtain medical attention immediately if ingested.

**4.2 Most Important Symptoms and Effects, Both Acute and Delayed**

Refer to Section 11 - Toxicological Information.

**4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed**

<b>Notes to Physician</b>	All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
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**Section 5: Firefighting Measures**

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**5.1 Extinguishing Media****Suitable Extinguishing Media** LARGE FIRES: Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray.  
SMALL FIRES: Dry chemical, CO<sub>2</sub> or water spray.**Unsuitable Extinguishing Media** No data available**5.2 Special Hazards Arising from the Substance or Mixture****Unusual Fire and Explosion Hazards** Plastic cartridge containing reagents may emit toxic vapors of carbon oxides, sulfur oxides, nitrogen oxides.**Hazardous Combustion Products** No data available**5.3 Advice for Firefighters**

Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Wear positive pressure self-contained breathing apparatus (SCBA).

SMALL FIRES: Move containers from fire area if you can do it without risk.

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**Section 6: Accidental Release Measures**

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**6.1 Personal Precautions, Protective Equipment and Emergency Procedures****Personal Precautions** In the event a cartridge is broken these personal precautions are applicable. Wear appropriate protective clothing. Do not walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate enclosed areas.**Emergency Procedures** No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended.**6.2 Environmental Precautions**

Prevent entry into waterways, sewers, basements or confined areas.

**6.3 Methods and Material for Containment and Cleaning Up****Containment/  
Clean-up Measures** For small spills, wear gloves and absorb spill with paper towel. Do not dispose spilled materials down drain.**6.4 Reference to other sections**

Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

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**Section 7: Handling and Storage**

**7.1 Precautions for safe handling**

**Handling** No special handling necessary. If cartridge is broken avoid contact with spilled reagents. Avoid contact with skin and eyes.

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage** Store according to product labeling. Keep away from incompatible materials. Store locked up. Keep container/package tightly closed in a cool, well-ventilated place.

**7.3 Specific end use(s)**

Refer to Section 1.2 - Relevant identified uses.

**Section 8: Exposure Controls/Personal Protection**

**8.1 Control parameters**

	Exposure Limits/Guidelines			
	Result	ACGIH	NIOSH	OSHA
Guanidinium thiocyanate	TWA	Not established	Not established	Not established

**8.2 Exposure controls**

**Engineering Measures/Controls** Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Personal Protective Equipment**

**Respiratory** Respiratory equipment is not expected to be necessary if material is used under ordinary conditions and as recommended. Otherwise, follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

**Eye/Face** Wear chemical splash safety goggles.

**Skin/Body** Wear protective clothing

**Environmental Exposure Controls** Follow best practice for site management and disposal of waste.

**Key to abbreviations**

OSHA = Occupational Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

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**Section 9: Physical and Chemical Properties**

**9.1 Information on Physical and Chemical Properties**

<b>Material Description</b>			
Physical Form	Liquid	Color	Colorless
Odor	Odorless	Odor Threshold	Data lacking
<b>General Properties</b>			
Boiling Point	212 °F(100 °C)	Melting Point/Freezing Point	32 °F(0 °C)
Decomposition Temperature	Data lacking	pH	3.3 to 8.8
Specific Gravity/Relative Density	= 1 Water=1	Water Solubility	Soluble 100 %
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
<b>Volatility</b>			
Vapor Pressure	Minimal	Vapor Density	Data lacking
Evaporation Rate	Minimal		
<b>Flammability</b>			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
<b>Environmental</b>			
Octanol/Water Partition Coefficient	Data lacking		

**9.2 Other Information**

No additional physical and chemical parameters noted.

**Section 10: Stability and Reactivity**

**10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability**

Stable

**10.3 Possibility of hazardous reactions**

Hazardous polymerization will not occur.

**10.4 Conditions to avoid**

Incompatible materials. Burning plastic cartridge containing reagents may liberate toxic byproducts

**10.5 Incompatible materials**

Acids.

**10.6 Hazardous decomposition products**

Burning plastic cartridge containing reagents may liberate toxic byproducts.

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**Section 11: Toxicological Information**

**11.1 Information on toxicological effects**

Components		
Guanidinium thiocyanate	593-84-0	Acute Toxicity: Intraperitoneal-Mouse LD50 • 593 mg/kg

GHS Properties	Classification
Acute Toxicity	EU/CLP•Data lacking UN GHS•Acute Toxicity - Oral 5 OSHA HCS 2012•Data lacking
Skin Corrosion/Irritation	EU/CLP•Data lacking UN GHS•Skin Mild Irritation 3 OSHA HCS 2012•Data lacking
Serious Eye Damage/Irritation	EU/CLP•Data lacking UN GHS•Eye Mild Irritation 2B OSHA HCS 2012•Eye Mild Irritation 2B
Skin Sensitization	EU/CLP•Data lacking UN GHS•Data lacking OSHA HCS 2012•Data lacking
Respiratory Sensitization	EU/CLP•Data lacking UN GHS•Data lacking OSHA HCS 2012•Data lacking
Carcinogenicity	EU/CLP•Data lacking UN GHS•Data lacking OSHA HCS 2012•Data lacking
Germ Cell Mutagenicity	EU/CLP•Data lacking UN GHS•Data lacking OSHA HCS 2012•Data lacking
Toxicity for Reproduction	EU/CLP•Data lacking UN GHS•Data lacking OSHA HCS 2012•Data lacking
STOT-SE	EU/CLP•Data lacking UN GHS•Data lacking OSHA HCS 2012•Data lacking

**Potential Health Effects**

**Inhalation**

**Acute (Immediate)** May cause irritation.

**Chronic (Delayed)** No data available

**Skin**

**Acute (Immediate)** Causes mild skin irritation.

**Chronic (Delayed)** No data available

**Eye**

**Acute (Immediate)** Causes eye irritation.

**Chronic (Delayed)** No data available

**Ingestion**

**Acute (Immediate)** May be harmful if swallowed.

**Chronic (Delayed)** No data available

**Key to abbreviations**

LD = Lethal Dose

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**Section 12: Ecological Information**

**12.1 Toxicity**

LC50 (guppy): 89.1 mg/l @ 96 h

**12.2 Persistence and degradability**

Material data lacking.

**12.3 Bioaccumulative potential**

Material data lacking.

**12.4 Mobility in Soil**

Material data lacking.

**12.5 Results of PBT and vPvB assessment**

No PBT and vPvB assessment has been conducted.

**12.6 Other adverse effects**

No studies have been found.

**Section 13: Disposal Considerations**

**13.1 Waste treatment methods**

- Product waste**                                    Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Packaging waste**                                Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**13.2 Other Information**

Biological specimens, transfer devices, and used cartridges should be considered capable of transmitting infectious agents requiring standard precautions. Follow your institution’s environmental waste procedures for proper disposal of used cartridges and unused reagents. These materials may exhibit characteristics of chemical hazardous waste requiring specific national or regional disposal procedures. If national or regional regulations do not provide clear direction on proper disposal, biological specimens and used cartridges should be disposed per WHO (World Health Organization) medical waste handling and disposal guidelines.

**Section 14: Transport Information**

	<b>14.1 UN Number</b>	<b>14.2 UN Proper Shipping Name</b>	<b>14.3 Transport Hazard Class(es)</b>	<b>14.4 Packing Group</b>	<b>14.5 Environmental Hazards</b>
<b>DOT</b>	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Applicable
<b>TDG</b>	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Applicable
<b>IMO/IMDG</b>	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Applicable
<b>IATA/ICAO</b>	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Applicable

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**14.6 Special Precautions for User**

None specified.

**14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not relevant.

**Section 15: Regulatory Information**

**15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture**

**SARA Hazard Classifications** Acute

Component	CAS	Inventory				
		Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Guanidinium thiocyanate	593-84-0	Yes	No	Yes	No	Yes

**Canada**

**Labor**

Canada - WHMIS - Classifications of Substances

•Guanidinium thiocyanate 593-84-0 Not Listed

Canada - WHMIS - Ingredient Disclosure List

•Guanidinium thiocyanate 593-84-0 Not Listed

**Environment**

Canada - CEPA - Priority Substances List

•Guanidinium thiocyanate 593-84-0 Not Listed

**United States**

**Labor**

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

•Guanidinium thiocyanate 593-84-0 Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

•Guanidinium thiocyanate 593-84-0 Not Listed

**Environment**

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

•Guanidinium thiocyanate 593-84-0 Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

•Guanidinium thiocyanate 593-84-0 Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

•Guanidinium thiocyanate 593-84-0 Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

•Guanidinium thiocyanate 593-84-0 Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

•Guanidinium thiocyanate 593-84-0 Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

•Guanidinium thiocyanate 593-84-0 Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

•Guanidinium thiocyanate 593-84-0 Not Listed



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### United States - California

#### Environment

##### U.S. - California - Proposition 65 - Carcinogens List

•Guanidinium thiocyanate 593-84-0 Not Listed

##### U.S. - California - Proposition 65 - Developmental Toxicity

•Guanidinium thiocyanate 593-84-0 *Not Listed*

##### U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

•Guanidinium thiocyanate 593-84-0 Not Listed

##### U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

•Guanidinium thiocyanate 593-84-0 Not Listed

##### U.S. - California - Proposition 65 - Reproductive Toxicity - Female

•Guanidinium thiocyanate 593-84-0 Not Listed

##### U.S. - California - Proposition 65 - Reproductive Toxicity - Male

•Guanidinium thiocyanate 593-84-0 Not Listed

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

### Section 16: Other Information

#### Relevant Phrases (code & full text)

H302 - Harmful if swallowed  
H313 - May be harmful in contact with skin  
H320 - Causes eye irritation

#### Disclaimer/ Statement of Liability

The above information is based on data available to us and is believed to be correct. Since the information may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of its use and all persons receiving it must make their own determination of the effects, properties, protections, and disposal which pertain to their particular conditions. No representation, warranty, or guarantee, express or implied (including a warranty of fitness or merchantability for a particular purpose), is made with respect to the material the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of the material. Caution should be used in the handling and use of the material. The above information is offered in good faith and with the belief that it is accurate. As of the date of issuance, we are providing all information relevant to the foreseeable handling of the material. However, in the event of an adverse incident associated with this product, this Safety Data Sheet is not, and is not intended to be, a substitute for consultation with appropriately trained personnel.

Key to abbreviations  
NDA = No data available