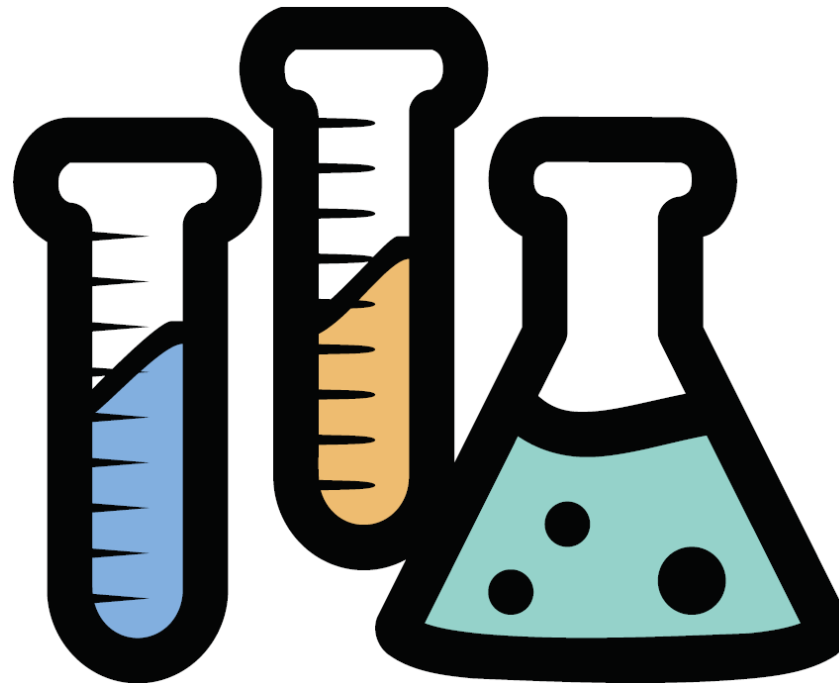


Laboratory Services Offered by the IRSST



PRICE LIST

Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST)

Laboratory Division
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www.irsst.qc.ca

Customer Services - Laboratory division

Phone: 514 288-1551
Analyses: Ext. 315
Instrument Calibration and Rental : Ext. 306
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sac.labo@irsst.qc.ca

Updated: April 15, 2022

Table of contents

INTRODUCTION.....	1
POLICY ON THE USE OF THE LABORATORY SERVICES OFFERED BY THE IRSST.....	2
Cost.....	2
Terms of payment.....	2
Sampling equipment.....	2
Samples reception.....	3
Calibration certificates.....	3
Purchase order.....	3
Subcontracted work.....	3
Rush turnaround.....	3
How to access our Services.....	4
Accreditation.....	5
Instrument rental policy.....	7
COSTS OF ANALYTICAL SERVICES.....	8
Environmental analyses.....	8
Toxicological analyses.....	26
Microbiological analyses.....	27
Efficacy evaluation Tests on Masks.....	28
PACKAGES.....	29
LIST OF WIPE SAMPLE KITS AVAILABLE TO ORDER.....	32
INSTRUMENT CALIBRATION COSTS.....	33
Acoustics.....	33

Lighting	36
Chemical measurements – Direct Reading Instruments.....	37
Thermohygroetry.....	39
Ventilation	41
Pumps	42
INSTRUMENT RENTAL - COSTS.....	43
CONTACT RESOURCES	49

INTRODUCTION

Our laboratory services are offered to the occupational health network and to private enterprises.

Our services include environmental, toxicological and microbiological analyses, sampling equipment, instrument rental and calibration, and tests on Respiratory Protective Devices.

For environmental and microbiological analyses, we recommend that you consult the Sampling Guide for Air Contaminants in the Workplace on the IRSST's Web site. www.irsst.qc.ca

For toxicological analyses, we recommend that you consult the *Guide de surveillance biologique – Stratégie de prélèvement et interprétation des résultats* and Le guide de prélèvement des échantillons biologiques also available on the IRSST's Web site : <https://www.irsst.qc.ca/en/publications-tools/publication/i/336/n/surveillance-biologique> .

POLICY ON THE USE OF THE LABORATORY SERVICES OFFERED BY THE IRSST

Cost

The cost of the sampling equipment is included in the costs of analysis.

The costs of the analytical services and instrument-related services are in effect as of January 31st, 2022.

The cost for a field blank analysis is the same as a sample.

Terms of payment

The client agrees to pay the IRSST for the costs of service within 30 days of receipt of the invoice.

Using the following methods:

- Cheque payable to the IRSST
- Bank transfer: Banking information is on the invoice
- For payments by bank transfer, please email the payment slip to compte.recevable@irsst.qc.ca

Sampling equipment

Except for toxicological analyses, the client agrees to use only the sampling equipment supplied by the IRSST, according to the *Sampling Guide for Air Contaminants in the Workplace*.

For toxicological analyses, the client agrees to obtain the sampling equipment himself, according to the *Guide de prélèvement des échantillons biologiques*.

If the equipment ordered is not all used, the unused quantity must be returned to us within 60 days; otherwise, it will be billed at market costs.

Samples reception

Business hours: Monday to Friday 8AM to 12PM & 1PM to 4PM

Samples received at the laboratory before 4 PM will be considered received the same day for analysis delay determination.

Samples received after 4 PM at the laboratory will be considered received the next business day.

Calibration certificates

The calibration certificates issued by the IRSST are subject to a copyright in accordance with accreditation requirements.

However, the client is authorized to reproduce all calibration certificates in whole (as stipulated on the certificates) for its own instruments in order to demonstrate, if need be, that they were calibrated according to IRSST's standards.

Purchase order

- ✓ The client has to enter its Purchase Order number on the request form if he wishes it to appear on the invoice.

Subcontracted work

- ✓ In some situations or for certain analyses, the IRSST laboratory subcontracts to other laboratories thoroughly selected according to our accreditation requirements. If applicable, the client authorization is required beforehand. A comment will then appear on the IRSST report, and the subcontractor laboratory's report will be provided. Additional costs of 25% will be billed as well as the costs for the sampling equipment, if applicable.

Rush turnaround

- ✓ Additional costs of 25% will be applicable if any analysis needs to be prioritized compared to regular delay. Such demands need prior approval by the Laboratory that are to be addressed through Customer Service.
- ✓ Additional costs of 25% will be applicable for any urgent request for equipment rental, meaning within a maximum of 5 business days following reception of the instrument rental request.
- ✓ Additional costs of 25% will be applicable for any urgent request for instrument calibration, meaning within a maximum of 5 business days following reception of the request.

How to access our Services

Services are available through our *ClicLab* web service: <https://cliclab.irsst.qc.ca/Login>

For customers who have not yet registered to *ClicLab*, please contact Laboratory Customer Service by email at sac.labo@irsst.qc.ca or at 514-288-1551, extension 306.

New customers will first need to fill our registration forms available on the Laboratory Services page of the IRSST web site: <https://www.irsst.qc.ca/en/laboratories/register> .

Accreditation

With recognized expertise in occupational health and safety services, the IRSST has several accreditations that guarantee to its partners and clients the quality, integrity and recognition of its work.

Areas of accreditation and organizations

The Analytical and Calibration Laboratories are accredited by these organizations according to ISO/IEC 17025:2017 standard.

American Industrial Hygiene Association - Laboratory Accreditation Program (AIHA LAP, LLC)

- Asbestos
- Metals (including beryllium)
- Silica
- Solvents
- Ions
- Respirable compressed air (CRA)

Scope of accreditation of analytical laboratories:

<https://www.aihaaccreditedlabs.org/lab-accreditation-programs/find-an-accredited-lab> - Lab ID : LAP-101913

Calibration Laboratory Assessment Service (CLAS) from National Council Research of Canada (NRC)

- Acoustic
- Flow

Scope of accreditation of calibration laboratories:

- CLAS: <https://nrc.canada.ca/en/certifications-evaluations-standards/calibration-laboratory-assessment-service/directory-accredited-calibration-laboratories/clas-certificate-number-94-01>
- SCC (Standard Council of Canada):
https://www.scc.ca/en/system/files/client-scopes/ASB_SOA_15162_CLAS_431_Scope_v4_2021-05-20.pdf .

New York State Department of Health, Wadsworth Center-Environmental Laboratory Approval Program (NYSDOH-ELAP)

- Asbestos in Non-Friable Material by Transmission Electron Microscopy (TEM).

Certificate and scope of accreditation: <https://www.irsst.qc.ca/Portals/0/upload/3-laboratoires/Certificat-ELAP.pdf>

Standard Council of Canada (SCC)

- Filtration efficiency and differential pressure of a filtering face-piece (FFPs) according to procedure IRSST I-APR-001 and the method from Annex A of the attestation document BNQ 1922-900.

Certificate and scope of accreditation:

https://www.scc.ca/en/system/files/client-scopes/ASB_SOA_151271_Scope_v1_2021-05-22_EN.pdf

Instrument rental policy

- 1) The client agrees to use the instrument according to the specifications described in the instrument's user manual or in any IRSST document accompanying the instrument. The instrument and its briefcase must be returned to IRSST, decontaminated and in good condition.
- 2) The costs of repair, cleaning or replacement made necessary following the use of the instrument are assumed in whole by the client. This includes damage caused during transportation, if applicable.
- 3) The rental costs are calculated by day, week or month (20 business days) and include initial calibration by the IRSST's laboratories. For direct reading instruments, only a functional check is carried out when the calibration is less than one year old.
- 4) The rented instrument is made available to the client around 4 p.m. on the day before the first day of rental (business day).
- 5) The rented instrument must be returned to the IRSST's laboratories before 12 noon on the day following the final day of rental (business day).
- 6) Any cancellation will result in a penalty equivalent to a one-day rental fee per instrument that will be billed to the client, unless a two days' notice is given prior to the rental period.
- 7) For any instrument and sampling equipment shipments done by the IRSST, the IRSST assumes the transportation and insurance costs.
- 8) For any instrument and sampling equipment shipments done by the client, the latter assumes the transportation and insurance costs.
- 9) All rentals or rental extensions must be arranged with Laboratory Customer Service (514) 288-1551, ext. 306, or by e-mail: sac.labo@irsst.qc.ca.

Reminder: Additional costs of 25% will be applicable for any urgent request for equipment rental, meaning within a maximum of five (5) business days following reception of the instrument rental request by Customer Service.

COSTS OF ANALYTICAL SERVICES

Environmental analyses

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
1,1,1-Trichloroethane	2120	Activated charcoal tube, 100/50	\$70	\$40
1,1,1-Trichloroethane	-	Passive dosimeter	Contact Customer Service	
1,1,2-Trichloroethane	2120	Activated charcoal tube, 100/50	\$70	\$40
1,2-Dichloroethane	2120	Activated charcoal tube, 100/50	\$70	\$40
1,2-Dichloroethylene	2120	Activated charcoal tube, 100/50	\$70	\$40
1,3-Butadiene	2189	Activated charcoal tube with TBC	\$75	Not applicable
1-Bromopropane	2120	Activated charcoal tube, 100/50	\$70	\$40
1-Methoxy-2-propanol	2120	Activated charcoal tube, 100/50	\$70	\$40
2-Aminoethanol	2170	XAD-2 tube, 7 cm	\$125	Not applicable
2-Aminoethanol	955	Impregnated filter	\$160	\$80
2-Butoxyethanol	2120	Activated charcoal tube, 100/50	\$70	\$40
2-Butoxyethyl acetate	2120	Activated charcoal tube, 100/50	\$70	\$40
2-Ethoxyethanol	2120	Activated charcoal tube, 100/50	\$70	\$40
2-Methoxyethanol	2120	Activated charcoal tube, 100/50	\$70	\$40
3-Carene	2120	Activated charcoal tube, 100/50	\$70	\$40
Acenaphthene – Cassette	911	Glass Fiber Filter 37 mm 0.8 µm	\$120	\$60
Acenaphthene – Tube	2187	Orbo 42 L tube	\$120	\$60
Acetaldehyde	2186	Orbo 23 tube	\$130	\$60
Acetic acid	2120	Activated charcoal tube, 100/50	\$123	Not applicable

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Acetone	2120	Activated charcoal tube, 100/50	\$70	\$40
Acetone	-	Passive dosimeter	Contact Customer Service	
Acrolein	2186	Orbo 23 tube	\$130	\$60
Allyl alcohol	2120	Activated charcoal tube, 100/50	\$70	\$40
Aluminum	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	\$28
Aluminum	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	\$28
Aluminum	990	Solu-Sert™ filter 25 mm	\$60	\$28
Aluminum	992	Solu-Sert™ filter 37 mm	\$60	\$28
Aluminum (Inhalable fraction)	928	MCEF 0.8 µm, 25 mm, IOM in plastic	\$65	\$28
Aluminum	3090	Wipe sample kit for metals	\$80	See package
Aluminum	100	Miscellaneous	\$45	\$24
Aluminum (sol. salts)	903	PVCF 37 mm, 5 µm	\$48	Not applicable
Ammonia	2144	Treated charcoal tube	\$106	Not applicable
Aniline	955	Impregnated filter	\$160	\$80
Anthracene – Cassette	911	Glass Fiber Filter 37 mm, 0.8 µm	\$120	\$60
Anthracene – Tube	2187	Orbo 42 L tube	\$120	\$60
Arsenic	990	Solu-Sert™ filter 25 mm	\$60	\$28
Arsenic	992	Solu-Sert™ filter 37 mm	\$60	\$28
Asbestos fibers by TEM (Tiles and other material)	100	Miscellaneous	\$185	Not applicable
Barium, soluble	100	Miscellaneous	\$48	Non applicable
Barium, soluble	903	PVCF 37 mm, 5 µm	\$48	Not applicable

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Barium	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	\$28
Barium	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	\$28
Benz(a)anthracene – Cassette	911	Glass Fiber Filter 37 mm, 0.8 µm	\$120	\$60
Benz(a)anthracene – Tube	2187	Orbo 42 L tube	\$120	\$60
Benzene	2120	Activated charcoal tube, 100/50	\$70	\$40
Benzene	-	Passive dosimeter	Contact Customer Service	
Benzo(b+j+k)fluoranthene - Cassette	911	Glass Fiber Filter 37 mm, 0.8 µm	\$120	\$60
Benzo(b+j+k)fluoranthene - Tube	2187	Orbo 42 L tube	\$120	\$60
Benzo(a)pyrene – Cassette	911	Glass Fiber Filter 37 mm, 0.8 µm	\$120	\$60
Benzo(a)pyrene – Tube	2187	Orbo 42 L tube	\$120	\$60
Benzo(e)pyrene – Cassette	911	Glass Fiber Filter 37 mm, 0.8 µm	\$120	\$60
Benzo(e)pyrene – Tube	2187	Orbo 42 L tube	\$120	\$60
Benzyl chloride	2120	Activated charcoal tube, 100/50	\$70	\$40
Beryllium	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	Not applicable
Beryllium	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	Not applicable
Beryllium	990	Solu-Sert™ filter 25 mm	\$60	Not applicable
Beryllium	992	Solu-Sert™ filter 37 mm	\$60	Not applicable
Beryllium (inhalable fraction)	928	MCEF 0.8 µm, 25 mm IOM in plastic	\$65	Not applicable
Beryllium	3090	Wipe sample kit for metals	\$80	Not applicable
Beryllium	100	Miscellaneous	\$45	\$24
Butyl acetate (all isomers)	2120	Activated charcoal tube, 100/50	\$70	\$40
Butyraldehyde	2186	Orbo 23 tube	\$130	\$60

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Cadmium	913	MCEF 37 mm, 0.8µm pre-weighed	\$48	\$28
Cadmium	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	\$28
Cadmium	990	Solu-Sert™ filter 25 mm	\$60	\$28
Cadmium	992	Solu-Sert™ filter 37 mm	\$60	\$28
Cadmium (Inhalable fraction)	928	MCEF 0.8 µm, 25 mm IOM in plastic	\$65	\$28
Cadmium	3090	Wipe sample kit for metals	\$80	See package
Cadmium	100	Miscellaneous	\$45	\$24
Camphor (synthetic)	2120	Activated charcoal tube, 100/50	\$70	Not applicable
Carbon tetrachloride	2120	Activated charcoal tube, 100/50	\$70	\$40
Carbon tetrachloride	-	Passive dosimeter	Contact Customer Service	
Chlorodifluoromethane	2121	Activated charcoal tube # 2 226-09	\$70	Not applicable
Chloroform	2120	Activated charcoal tube, 100/50	\$70	\$40
Chromium	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	\$28
Chromium	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	\$28
Chromium	990	Solu-Sert™ filter 25 mm	\$60	\$28
Chromium	992	Solu-Sert™ filter 37 mm	\$60	\$28
Chromium (Inhalable fraction)	928	MCEF 0.8 µm, 25 mm IOM in plastic	\$65	\$28
Chromium	3090	Wipe sample kit for metals	\$80	See package
Chromium	100	Miscellaneous	\$45	\$24
Chromium VI, water insoluble	976	Quartz filter	\$115	\$40
Chromium VI, water soluble	976	Quartz filter	\$115	\$40
Chromium VI, acid aerosol	977	Pretreated quartz filter	\$155	Not applicable

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Chrysene – Cassette	911	Glass Fiber Filter 37 mm, 0.8 µm	\$120	\$60
Chrysene – Tube	2187	Orbo 42 L tube	\$120	\$60
Cobalt	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	\$28
Cobalt	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	\$28
Cobalt	990	Solu-Sert™ filter 25 mm	\$60	\$28
Cobalt	992	Solu-Sert™ filter 37 mm	\$60	\$28
Cobalt (Inhalable fraction)	928	MCEF 0.8 µm, 25 mm IOM in plastic	\$65	\$28
Cobalt	3090	Wipe sample kit for metals	\$80	See package
Cobalt	100	Miscellaneous	\$45	\$24
Copper	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	\$28
Copper	916	MCEF 25 mm, 0.8 µm, pre-weighed	\$48	\$28
Copper	990	Solu-Sert™ filter 25 mm	\$60	\$28
Copper	992	Solu-Sert™ filter 37 mm	\$60	\$28
Copper (Inhalable fraction)	928	MCEF 0.8 µm, 25 mm IOM in plastic	\$65	\$28
Copper	3090	Wipe sample kit for metals	\$80	See package
Copper	100	Miscellaneous	\$45	\$24
Cristobalite, crystalline silica	902	PVCF pre-weighed, 37 mm, 5 µm	\$180	\$20
Cristobalite, crystalline silica	997	PVCF 37 mm, 5 µm pre-weighed, 3 parts	\$180	\$20
Cumene	2120	Activated charcoal tube, 100/50	\$70	\$40
Cumene	-	Passive dosimeter	Contact Customer Service	
Cyclohexane	2120	Activated charcoal tube, 100/50	\$70	\$40
Cyclohexane	-	Passive dosimeter	Contact Customer Service	

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Cyclohexanol	2120	Activated charcoal tube, 100/50	\$70	\$40
Cyclohexanone	2127	Chromosorb 106 tube	\$85	Not applicable
Desflurane	2190	Anasorb 747 tube	\$75	\$40
Diacetone alcohol	2120	Activated charcoal tube, 100/50	\$70	N/A
Dibutyl phthalate	912	Cellulose nitrate filter	\$115	\$50
Dicyclopentadiene	2120	Activated charcoal tube, 100/50	\$70	\$40
Diesel particulate matter (as total carbon)	952	Traited quartz fiber filter, 25 mm, 3 parts	\$105	Not applicable
Diesel particulate matter (as total carbon)	953	Traited quartz fiber filter, 37 mm, 3 parts	\$105	Not applicable
Diesel, fuel (as total hydrocarbons)	2120	Activated charcoal tube, 100/50	\$70	\$40
Diethanolamine	955	Impregnated filter	\$160	\$80
Diethyl ether	2120	Activated charcoal tube, 100/50	\$70	\$40
Diethylene glycol monobutyl ether	2120	Activated charcoal tube, 100/50	\$70	\$40
Diethyl phthalate	912	Cellulose nitrate filter	\$115	\$50
Diisobutyl ketone	2120	Activated charcoal tube, 100/50,	\$70	\$40
Dimethylamine	955	Impregnated filter	\$160	\$80
Dimethyl phthalate	912	Cellulose nitrate filter	\$115	\$50
Dioxane	2120	Activated charcoal tube, 100/50	\$70	\$40
Di-sec-octyl phthalate	912	Cellulose nitrate filter	\$115	\$50
Dusts, inhalable - disposable cassette	922	PVCF 25 mm, 5 µm, disposable IOM, pre-weighed	\$48	Not applicable
Dusts, respirable	902	PVCF, 37 mm, 5 µm pre-weighed	\$30	Not applicable

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Dusts, respirable	913	MCEF 37 mm, 0.8 µm, pre-weighed	\$30	Not applicable
Dusts, respirable	914	PVCF 25 mm, 5 µm, pre-weighed	\$30	Not applicable
Dusts, respirable	916	MCEF 25 mm, 0.8 µm, pre-weighed	\$30	Not applicable
Dusts, respirable	997	PVCF 37 mm, 5 µm, pre-weighed, 3 parts cassette	\$30	Not applicable
Dusts, total	902	PVCF 37 mm, 5 µm, pre-weighed	\$30	Not applicable
Dusts, total	910	PVCF 37 mm, 5 µm, pre-weighed, Accu-CAP® insert	\$42	Not applicable
Dusts, total	913	MCEF 37 mm, 0.8 µm, pre-weighed	\$30	Not applicable
Dusts, total	914	PVCF 25 mm, 5 µm, pre-weighed	\$30	Not applicable
Dusts, total	916	MCEF 25 mm, 0.8 µm, pre-weighed	\$30	Not applicable
Dusts, total	997	PVCF 37 mm, 5 µm, pre-weighed, 3 parts cassette	\$30	Not applicable
Enflurane	2120	Activated charcoal tube, 100/50	\$70	\$40
Epichlorohydrin	2120	Activated charcoal tube, 100/50	\$70	Not applicable
Ethyl acetate	2120	Activated charcoal tube, 100/50	\$70	\$40
Ethyl acetate	-	Passive dosimeter	Contact Customer Service	
Ethyl acrylate	2189	Activated charcoal tube with TBC	\$75	\$40
Ethyl alcohol	2120	Activated charcoal tube, 100/50	\$70	\$40
Ethyl alcohol	-	Passive dosimeter	Contact Customer Service	
Ethyl benzene	2120	Activated charcoal tube, 100/50	\$70	\$40
Ethyl benzene	-	Passive dosimeter	Contact Customer Service	
Ethyl glycol acetate	2120	Activated charcoal tube, 100/50	\$70	\$40

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Ethyl glycol acetate	-	Passive dosimeter	Contact Customer Service	
Fibres Count by PCM (Phase Contrast Microscopy)	918	MCEF 25 mm, 0.8 µm	\$90	Not applicable
Fibres Identification by PLM (Polarized Light Microscopy)	100	Miscellaneous	\$132	Not applicable
Fluoranthene – Cassette	911	Glass Fiber Filter 37 mm, 0.8 µm	\$120	\$60
Fluoranthene – Tube	2187	Orbo 42 L tube	\$120	\$60
Fluorene – Cassette	911	Glass Fiber Filter 37 mm, 0.8 µm	\$120	\$60
Fluorene – Tube	2187	Orbo 42 L tube	\$120	\$60
Formaldehyde (Mass Spectrometry)	2186	Orbo 23 tube	\$130	\$60
Formaldehyde (Quebec RSST Reglementation)	6100	Passive dosimeter: form. # UMEX-100	\$140	Not applicable
Formaldehyde (High sensitivity – ACGIH reglementation)	2196	Silica tube DNPH + KI	\$140	Not applicable
Furfural	2186	Orbo 23 tube	\$130	\$60
Furfuryl alcohol	2162	Porapak Q tube	\$80	Not applicable
Gasoline	2120	Activated charcoal tube, 100/50	\$70	\$40
Halothane	2120	Activated charcoal tube, 100/50	\$70	\$40
HDI (monomer) – High sensitivity	970	Impregnated GF filter	\$185	\$105
HDI (monomer)	917	Teflon and Glass fibre filters with jar	See package	See package
HDI (oligomers)	917	Teflon and Glass fibre filters with jar	See package	See package
HDI (monomer)	1415	Impinger	See package	See package

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
HDI (oligomers)	1415	Impinger	See package	See package
HDI (monomer)	981	Impinger with filter for isocyanate	See package	See package
HDI (oligomers)	981	Impinger with filter for isocyanate	See package	See package
Heptanal	2186	Orbo 23 tube (20257-U)	\$130	\$60
Hexanal	2186	Orbo 23 tube (20257-U)	\$130	\$60
HMDI (monomer)	917	Teflon and Glass fibre filters with jar	See package	See package
HMDI (oligomers)	917	Teflon and Glass fibre filters with jar	See package	See package
HMDI (monomer) - High sensitivity	970	Impregnated GF filter	\$185	\$105
Indium	905	MCEF 37 mm, 0.8 µm	\$48	Not applicable
Indium	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	Not applicable
Indium	915	MCEF 25 mm, 0.8 µm	\$48	Not applicable
Indium	916	MCEF 25 mm, 0.8 µm, pre-weighed	\$48	Not applicable
IPDI (monomer)	917	Teflon and Glass fibre filters with jar	See package	See package
IPDI (oligomer)	917	Teflon and Glass fibre filters with jar	See package	See package
IPDI (monomer)	1415	Impinger	See package	See package
IPDI (oligomers)	1415	Impinger	See package	See package
IPDI (monomer)	981	Impinger with filter for isocyanate	See package	See package
IPDI (oligomers)	981	Impinger with filter for isocyanate	See package	See package
IPDI (monomer) – High sensitivity	970	Impregnated GF filter	\$185	\$105
Iron	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	\$28
Iron	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	\$28
Iron	990	Solu-Sert™ filter 25 mm	\$60	\$28

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Iron	992	Solu-Sert™ filter 37 mm	\$60	\$28
Iron (Inhalable fraction)	928	MCEF 0.8 µm, 25 mm IOM in plastic	\$65	\$28
Iron	3090	Wipe sample kit for metals	\$80	See package
Iron	100	Miscellaneous	\$45	\$24
Isobutyl acetate	-	Passive dosimeter	Contact Customer Service	
Isobutyl alcohol	2120	Activated charcoal tube, 100/50	\$70	\$40
Isobutyl alcohol	-	Passive dosimeter	Contact Customer Service	
Isobutyraldehyde	2186	Orbo 23 tube	\$130	\$60
Isoflurane	2120	Activated charcoal tube, 100/50	\$70	\$40
Isophorone	2120	Activated charcoal tube, 100/50	\$70	\$40
Isopropyl acetate	2120	Activated charcoal tube, 100/50	\$70	\$40
Isopropyl alcohol	2120	Activated charcoal tube, 100/50	\$70	\$40
Isopropyl alcohol	-	Passive dosimeter	Contact Customer Service	
Isopropylamine	955	Impregnated filter	\$160	\$80
Isovaleraldehyde	2186	Orbo 23 tube	\$130	\$60
Kerosene	2120	Activated charcoal tube, 100/50	\$70	\$40
Lead	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	\$28
Lead	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	\$28
Lead	990	Solu-Sert™ filter 25 mm	\$60	\$28
Lead	992	Solu-Sert™ filter 37 mm	\$60	\$28
Lead (Inhalable fraction)	928	MCEF 0.8 µm, 25 mm IOM in plastic	\$65	\$28
Lead	3090	Wipe sample kit for metals	\$80	See package

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Lead	100	Miscellaneous	\$45	\$24
Limonene	2120	Activated charcoal tube, 100/50	\$70	\$40
Magnesium	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	\$28
Magnesium	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	\$28
Magnesium	990	Solu-Sert™ filter 25 mm	\$60	\$28
Magnesium	992	Solu-Sert™ filter 37 mm	\$60	\$28
Magnesium (Inhalable fraction)	928	MCEF 0.8 µm, 25 mm IOM in plastic	\$65	\$28
Magnesium	3090	Wipe sample kit for metals	\$80	See package
Magnesium	100	Miscellaneous	\$45	\$24
Manganese	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	\$28
Manganese	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	\$28
Manganese	990	Solu-Sert™ filter 25 mm	\$60	\$28
Manganese	992	Solu-Sert™ filter 37 mm	\$60	\$28
Manganese (Inhalation fraction)	928	MCEF 0.8 µm, 25 mm IOM in plastic	\$65	\$28
Manganese	3090	Wipe sample kit for metals	\$80	See package
Manganese	100	Miscellaneous	\$45	\$24
MDI (monomer)	917	Teflon and Glass fibre filters with jar	See package	See package
MDI (oligomers)	917	Teflon and Glass fibre filters with jar	See package	See package
MDI (monomer)	1415	Impinger	See package	See package
MDI (oligomers)	1415	Impinger	See package	See package
MDI (monomer)	981	Impinger with filter for isocyanate	See package	See package
MDI (oligomers)	981	Impinger with filter for isocyanate	See package	See package

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
MDI (monomer) – High sensitivity	970	Impregnated GF filter	\$185	\$105
Methyl acetate	2120	Activated charcoal tube, 100/50	\$70	\$40
Methyl acetate	-	Passive dosimeter	Contact Customer Service	
Methyl acrylate	2189	Activated charcoal tube with TBC	\$75	\$40
Methyl alcohol	2140	Silica gel tube	\$70	Not applicable
Méthylamine	955	Impregnated filter	\$160	\$80
Methyl ethyl ketone	2120	Activated charcoal tube, 100/50	\$70	\$40
Methyl ethyl ketone	2190	Anasorb 747 tube	\$75	Not applicable
Methyl ethyl ketone	-	Passive dosimeter	Contact Customer Service	
Methyl formate	2121	Activated charcoal tube, 400/200	\$70	Not applicable
Methyl glycol acetate	2120	Activated charcoal tube, 100/50	\$70	\$40
Methyl isoamyl ketone	2120	Activated charcoal tube, 100/50	\$70	\$40
Methyl isobutyl ketone	2120	Activated charcoal tube, 100/50,	\$70	\$40
Methyl isobutyl ketone	-	Passive dosimeter	Contact Customer Service	
Methyl methacrylate	2185	Anasorb 727 tube	\$115	Not applicable
Methyl n-amyl ketone	2120	Activated charcoal tube, 100/50	\$70	\$40
Methyl propyl ketone	2120	Activated charcoal tube, 100/50	\$70	\$40
Methylcyclohexane	2120	Activated charcoal tube, 100/50	\$70	\$40
Methylcyclohexanol	2120	Activated charcoal tube, 100/50	\$70	\$40
Methylene chloride	2120	Activated charcoal tube, 100/50	\$70	\$40
Methylene chloride	-	Passive dosimeter	Contact Customer Service	
Methyl styrene (alpha)	2120	Activated charcoal tube, 100/50	\$70	\$40

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Mineral composition (phase identification)	100	Miscellaneous	\$160	Not applicable
Morpholine	955	Impregnated filter	\$160	\$80
N,N-Dimethylformamide	2140	Silica gel tube (226-10)	\$70	Not applicable
n-Amyl acetate	-	Passive dosimeter	Contact Customer Service	
Naphtha, VM and P	2120	Activated charcoal tube, 100/50	\$70	\$40
Naphthalene	2120	Activated charcoal tube, 100/50	\$70	Not applicable
n-Butyl acetate	2120	Activated charcoal tube, 100/50	\$70	\$40
n-Butyl alcohol	2120	Activated charcoal tube, 100/50	\$70	\$40
n-Butyl alcohol	-	Passive dosimeter	Contact Customer Service	
n-Heptane	-	Passive dosimeter	Contact Customer Service	
n-Heptane (all isomers)	2120	Activated charcoal tube, 100/50	\$70	\$40
n-Hexane	2120	Activated charcoal tube, 100/50	\$70	\$40
n-Hexane	-	Passive dosimeter	Contact Customer Service	
Nickel	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	\$28
Nickel	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	\$28
Nickel	990	Solu-Sert™ filter 25 mm	\$60	\$28
Nickel	992	Solu-Sert™ filter 37 mm	\$60	\$28
Nickel (Inhalable fraction)	928	MCEF 0.8 µm, 25 mm IOM in plastic	\$65	\$28
Nickel	3090	Wipe sample kit for metals	\$80	See package
Nickel	100	Miscellaneous	\$45	\$24
Nickel, soluble	903	PVCF 37 mm, 5 µm	\$48	Not applicable

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
N-Nitrosodibutylamine	2210	Florisil tube, 500 mg	\$225	Package only
N-Nitrosodiethylamine	2210	Florisil tube, 500 mg	\$225	Package only
N-Nitrosodimethylamine	2210	Florisil tube, 500 mg	\$225	Package only
N-Nitrosodipropylamine	2210	Florisil tube, 500 mg	\$225	Package only
N-Nitrosomethylethylamine	2210	Florisil tube, 500 mg	\$225	Package only
N-Nitrosomorpholine	2210	Florisil tube, 500 mg	\$225	Package only
N-Nitrosopiperidine	2210	Florisil tube, 500 mg	\$225	Package only
N-Nitrosopyrrolidine	2210	Florisil tube, 500 mg	\$225	Package only
Nonane	2120	Activated charcoal tube, 100/50	\$70	\$40
Nonane	-	Passive dosimeter	Contact Customer Service	
n-Pentane	-	Passive dosimeter	Contact Customer Service	
n-Pentane (all isomers)	2120	Activated charcoal tube, 100/50	\$70	\$40
Pentyl acetate (all isomers)	2120	Activated charcoal tube, 100/50	\$70	\$40
n-Propyl acetate	2120	Activated charcoal tube, 100/50	\$70	\$40
n-Propyl acetate	-	Passive dosimeter	Contact Customer Service	
n-Propyl alcohol	2120	Activated charcoal tube, 100/50	\$70	\$40
n-Propyl alcohol	-	Passive dosimeter	Contact Customer Service	
Octane	-	Passive dosimeter	Contact Customer Service	
Octane and Isooctane	2120	Activated charcoal tube, 100/50	\$70	\$40
o-Dichlorobenzene	2120	Activated charcoal tube, 100/50	\$70	\$40

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Oil mist	960	Teflon B. oil filter	\$110	Not applicable
p-Chlorotrifluoromethylbenzene	2120	Activated charcoal tube, 100/50	\$70	\$40
p-Dichlorobenzene	2120	Activated charcoal tube, 100/50	\$70	\$40
Pentyl acetate (all isomers)	2120	Activated charcoal tube, 100/50	\$70	\$40
Perchloroethylene	2120	Activated charcoal tube, 100/50	\$70	\$40
Perchloroethylene	-	Passive dosimeter	Contact Customer Service	
Phenanthrene – Cassette	911	Glass Fiber Filter 37 mm, 0.8 µm	\$120	\$60
Phenanthrene – Tube	2187	Orbo 42L tube	\$120	\$60
Phenol	1422	Midget impinge with standard nozzle	\$150	Not applicable
Pinene (alpha)	2120	Activated charcoal tube, 100/50	\$70	\$40
Pinene (beta)	2120	Activated charcoal tube, 100/50	\$70	\$40
Propionaldehyde	2186	Orbo 23 tube	\$130	\$60
Pyrene – Cassette	911	Glass Fiber Filter 37 mm, 0.8 µm	\$120	\$60
Pyrene – Tube	2187	Orbo 42 L tube	\$120	\$60
Pyridine	2120	Activated charcoal tube, 100/50	\$70	Not applicable
Quantitative analysis of solvents	2120	Activated charcoal tube, 100/50	\$70	\$40
Quartz, crystalline silica	902	PVCF 37 mm, 5 µm pre-weighed	\$180	\$20
Quartz, crystalline silica	997	PVCF 37 mm, 5 µm pre-weighed, 3 parts	\$180	\$20
Rubber solvent	2120	Activated charcoal tube, 100/50	\$70	\$40
sec-Butyl acetate	-	Passive dosimeter	Contact Customer Service	
sec-Butyl alcohol	2120	Activated charcoal tube, 100/50	\$70	\$40
Sevoflurane	2190	Anasorb 747 tube	\$75	\$40

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Silver	905	MCEF 37 mm, 0.8 µm	\$48	Not applicable
Soluble fraction in benzene	911	Glass Fiber Filter 37 mm, 0.8µm	\$110	Not applicable
Solvent composition	100	Miscellaneous	\$180	Not applicable
Solvent composition	2120	Activated charcoal tube, 100/50	\$180	Not applicable
Stoddard solvent	2120	Activated charcoal tube, 100/50	\$70	\$40
Styrene (monomer)	2120	Activated charcoal tube, 100/50	\$70	\$40
Styrene (monomer)	-	Passive dosimeter	Contact Customer Service	
TDI-2,4 (monomer)	917	Teflon and Glass fibre filters with jar	See package	See package
TDI-2,4 (oligomers)	917	Teflon and Glass fibre filters with jar	See package	See package
TDI-2,4 (monomer)	1415	Impinger	See package	See package
TDI-2,4 (oligomers)	1415	Impinger	See package	See package
TDI-2,4 (monomer)	981	Impinger with filter for isocyanate	See package	See package
TDI-2,4 (oligomers)	981	Impinger with filter for isocyanate	See package	See package
TDI-2,4 (monomer) – High sensitivity	970	Impregnated GF filter	\$185	\$105
TDI-2,6 (monomer)	917	Teflon and Glass fibre filters with jar	See package	See package
TDI-2,6 (oligomers)	917	Teflon and Glass fibre filters with jar	See package	See package
TDI-2,6 (monomer)	1415	Impinger	See package	See package
TDI-2,6 (oligomers)	1415	Impinger	See package	See package
TDI-2,6 (monomer)	981	Impinger with filter for isocyanate	See package	See package
TDI-2,6 (oligomers)	981	Impinger with filter for isocyanate	See package	See package
TDI-2,6 (monomer) – High sensitivity	970	Impregnated GF filter	\$185	\$105

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
tert-Butyl alcohol	2120	Activated charcoal tube, 100/50	\$70	\$40
Tetrahydrofuran	2120	Activated charcoal tube, 100/50	\$70	\$40
Thallium	905	MCEF 37 mm, 0.8 µm	\$48	Not applicable
Thallium	913	MCEF 37 mm, 0.8 µm, pre-weighed	\$48	Not applicable
Thallium	915	MCEF 25 mm, 0.8 µm	\$48	Not applicable
Thallium	916	MCEF 25 mm, 0.8 µm, pre-weighed	\$48	Not applicable
Toluene	2120	Activated charcoal tube, 100/50	\$70	\$40
Toluene	-	Passive dosimeter	Contact Customer Service	
Total organic matter- (asphalt fumes)	937	PTFE filter 1µm 37 mm pre-weighed with Orbo 42L tube	\$160	Not applicable
Trichloroethylene	2120	Activated charcoal tube, 100/50	\$70	\$40
Trichloroethylene	-	Passive dosimeter	Contact Customer Service	
Trichlorotrifluoroethane	2120	Activated charcoal tube, 100/50	\$70	Not applicable
Triglycidyl isocyanurate	910	PVCF 37 mm, pre-weighed Accucap insert, 5 µm	\$185	Not applicable
Trimethyl benzene	2120	Activated charcoal tube, 100/50	\$70	\$40
Trimethyl benzene	-	Passive dosimeter	Contact Customer Service	
Turpentine	2120	Activated charcoal tube, 100/50	\$70	\$40
Valeraldehyde	2186	Orbo 23 tube	\$130	\$60
Vanadium	913	MCEF 37 mm, 0.8 µm, pre-weighed	\$48	\$28
Vanadium	916	MCEF 25 mm, 0.8 µm, pre-weighed	\$48	\$28
Vanadium	990	Solu-Sert™ filter 25 mm	\$60	\$28
Vanadium	992	Solu-Sert™ filter 37 mm	\$60	\$28

Substances	Equipment	Description of equipment	Cost for substance # 1	Cost for each extra substance
Vanadium (Inhalable fraction)	928	MCEF 0.8 µm, 25 mm, IOM in plastic	\$65	\$28
Vanadium	3090	Wipe sample kit for metals	\$80	See package
Vanadium	100	Miscellaneous	\$45	\$24
Vinyl acetate	2195	Orbo 92 tube	\$115	Not applicable
Vinyl chloride (monomer)	2120	Activated charcoal tube, 100/50	\$70	Not applicable
Xylenes (o, m, p isomers)	2120	Activated charcoal tube, 100/50	\$70	\$40
Xylenes (o, m, p isomers)	-	Passive dosimeter	Contact Customer Service	
Yttrium	905	MCEF 37 mm, 0.8 µm	\$48	Not applicable
Yttrium	913	MCEF 37 mm, 0.8 µm, pre-weighed	\$48	Not applicable
Yttrium	915	MCEF 25 mm, 0.8 µm	\$48	Not applicable
Yttrium	916	MCEF 25 mm, 0.8 µm, pre-weighed	\$48	Not applicable
Zinc	913	MCEF 37 mm, 0.8 µm pre-weighed	\$48	\$28
Zinc	916	MCEF 25 mm, 0.8 µm pre-weighed	\$48	\$28
Zinc	990	Solu-Sert™ filter 25 mm	\$60	\$28
Zinc	992	Solu-Sert™ filter 37 mm	\$60	\$28
Zinc (Inhalable fraction)	928	MCEF 0.8 µm, 25 mm IOM in plastic	\$65	\$28
Zinc	100	Miscellaneous	\$45	\$24

Toxicological analyses

Analyses	Cost *
Arsenic, urinary, by ICP-MS	\$160
Cadmium, urinary, by ICP-MS	\$55
Carboxyhemoglobin	\$18
Chromium, urinary, by ICP-MS	\$55
Cobalt, urinary, by ICP-MS	\$55
Fluorine, urinary	\$65
Hemoglobin, total	\$18
Lead, blood	\$45
Mandelic acid, urinary (AML)	\$160
Mercury, blood	\$45
Mercury, urinary	\$55
4,4'-Diaminodiphenylmethane, urinary (MDA)	\$190
o,m,p-Methylhippuric acids, urinary (AMH)	\$160
Nickel, urinary, by ICP-MS	\$55
Phenylglyoxylic acid, urinary (AP)	\$160
S-Phenylmercapturic acid, urinary (SPMA)	\$160

****Urinary density and creatinine analyses are included in the cost of the analysis***

Microbiological analyses

Our team offers a tailor-made service for assessment and monitoring of biological risks in the workplace. Please contact us at risesbio@irsst.gc.ca for requests and needs that are beyond the analyzes listed below.

Analyses	Basic cost	Additional cost *	Cost by genus	Cost by species
Bacterial count	\$50	\$30	n/a	n/a
Bacterial identification **	\$50	\$30	\$50	\$75
Endotoxins	\$215	n/a	n/a	n/a
Gram negative count	\$50	\$30	n/a	n/a
Gram negative identification **	\$50	\$30	\$50	\$75
Identification and enumeration of <i>Legionella pneumophila</i> and <i>Legionella</i> sp (culture method) **	\$300	n/a	Included in basic cost	\$10
Mycological count	\$50	\$30	n/a	n/a
Mycological identification **	\$50	\$30	\$75	\$100
Mycological structure (bulk)	\$90	n/a	n/a	n/a
Mycological structure on slides	\$65	n/a	n/a	n/a

*Additional cost for sampling on cassette, for liquid or solid process samples, and for water samples. No additional cost for air samples with a petri.

** The identification includes the counts for quantitative samples (air or liquid process).

Efficacy evaluation Tests on Masks

Type of mask : N95-Type Respiratory Protective Device (APR)

Evaluation of the filtration efficacy of an N95-type respiratory protective device (RPD)

Respiratory Filtration efficiency and differential pressure evaluation by comparison to an N95 NIOSH certified respirator under title 42 CFR 84.

*A minimum of **10 RPD** per lot is required, per each testing request (one lot = one request).*

**\$1100
per request**

Type of mask : Filtering Face Protection (FFP)

FFP performance evaluation for BNQ* certification

Filtering Face Protection (FFP) filtration efficiency determination for 20 nm to 4000 nm particules following Appendix A of BNQ 1922-900/2020 attestation document.

*A minimum of **5 masks** per lot is required, per each testing request (one lot = one request).*

**225 \$
per mask**

* BNQ : Bureau de Normalisation du Québec

PACKAGES

12 metals by ICP-MS Cassette (air sample) or bulk sample
\$135
<ul style="list-style-type: none"> • Aluminium • Cadmium • Chrome • Cobalt • Cuivre • Fer • Magnésium • Manganèse • Nickel • Plomb • Vanadium • Zinc

11 metals by ICP-MS Ghost Wipe - 3090
\$160
<ul style="list-style-type: none"> • Aluminium • Cadmium • Chrome • Cobalt • Cuivre • Fer • Magnésium • Manganèse • Nickel • Plomb • Vanadium

13 metals by ICP-MS Solu-Sert™ cassette - 990 et 992
\$150
<ul style="list-style-type: none"> • Aluminium • Arsenic • Cadmium • Chrome • Cobalt • Cuivre • Fer • Magnésium • Manganèse • Nickel • Plomb • Vanadium • Zinc

11 PAHs (particules) by GC-MS Cassette 911
\$180
<ul style="list-style-type: none"> • Acénaphthène • Anthracène • Benz(a)anthracène • Benzo(b+j+k)fluoranthène • Benzo(a)pyrène • Benzo(e)pyrène • Chrysène • Fluorène • Fluoranthène • Phénanthrène • Pyrène

11 PAHs (vapour) by GC-MS Tube 2187
\$180
<ul style="list-style-type: none"> • Acénaphthène • Anthracène • Benz(a)anthracène • Benzo(b+j+k)fluoranthène • Benzo(a)pyrène • Benzo(e)pyrène • Chrysène • Fluorène • Fluoranthène • Phénanthrène • Pyrène

11 aldehydes by GC-MS Tube 2186
\$250
<ul style="list-style-type: none"> • Acétaldéhyde • Acroléine • Butyraldéhyde • Furfural • Formaldéhyde • Heptanal • Hexanal • Isobutyraldéhyde • Isovaléraldéhyde • Propionaldéhyde • Valéraldéhyde

PACKAGES (cont.)

Quantitative composition of 37 solvents by GC-MS on tube 2120	
\$530	
• n- Amyl acetate	• Methylcyclohexane
• Acetone	• Methylene chloride
• Benzene	• n-Butyl acetate
• Chloroform	• n-Butyl alcohol
• Cumene	• n-Heptane
• Cyclohexane	• n-Hexane
• Diethyl ether	• Nonane
• Ethyl acetate	• n-Pentane
• Ethyl alcohol	• n-Propyl acetate
• Ethylbenzene	• Octane
• Isobutyl acetate	• Perchloroethylene
• Isobutyl alcohol	• sec-Butyl acetate
• Isopropyl acetate	• Styrene
• Isopropyl alcohol	• Tetrahydrofuran
• Methyl acetate	• Toluene
• Methyl ethyl ketone	• Trichloroethylene
• Methyl isobutyl ketone	• Trimethylbenzenes
• Methyl n-amyl ketone	• Xylenes
• Methyl propyl ketone	

PACKAGES (cont.)

Compressed Breathing air
\$400
The portable device for sampling and analyzing compressed breathing air was designed by IRSST in reference to the standard CAN/CSA-Z180.1-00. This device allows the determination of the quality of the breathing air and compressed breathing air generated by systems such as supplied-air respirators, supplied-air suits, self-contained breathing apparatus (SCBA) (open-circuit) and other systems, as long as they generate a pressure equal or above 10 lbs/in ² (10 psi).

Isocyanates monomer et oligomers Cassette 981 and Impinger 1415 2 results : total monomer and oligomers
\$250 for the first isocyanate and \$70 each for the others
• 2,4-TDI
• 2,6-TDI
• HDI
• IPDI
• MDI

Isocyanates monomer <u>only</u> cassette 917 3 results :vapor monomer , aerosol monomer and total monomer
\$220 for the first isocyanate and \$70 each for the others
• 2,4-TDI
• 2,6-TDI
• HDI
• HMDI
• IPDI
• MDI

Isocyanates monomer et oligomers cassette 917 4 results : vapor monomer, aerosol monomer, total monomer and oligomers
\$250 for the first isocyanate and \$70 each for the others
• 2,4-TDI
• 2,6-TDI
• HDI
• HMDI
• IPDI
• MDI

PACKAGES (cont.)

8 Nitrosamines by GC-NPD tube 2210
\$225
<ul style="list-style-type: none"> • N-Nitrosodibutylamine • N-Nitrosodiethylamine • N-Nitrosodimethylamine • N-Nitrosodipropylamine • N-Nitrosomethylethylamine • N-Nitrosomorpholine • N-Nitrosopiperidine • N-Nitrosopyrrolidine

7 amines by LC-MS Cassette 955
\$265
<ul style="list-style-type: none"> • 2-Aminoéthanol • Aniline • Diéthanolamine • Diméthylamine • Isopropylamine • Méthylamine • Morpholine

LIST OF WIPE SAMPLE KITS AVAILABLE TO ORDER

IRSST Inventory #	Description of the kit	Cost per kit
2625	Surface sample kit (25 wipes) – Chromium VI	\$50
3020	Surface sample kit (5 wipes) – Cyanides	\$50
3050	Surface sample kit (25 wipes) – Aliphatics Isocyanates (HDI)	\$71
3060	Surface sample kit (25 wipes) – Aromatics Isocyanates (MDI et TDI)	\$71

INSTRUMENT CALIBRATION COSTS

For Acoustics, Electromagnetism and Flow meters, if a deviation from the manufacturer’s method is required, authorization from the client is required before proceeding to the calibration of the instrument.

Acoustics

Sound calibrator (See models below)	
<i>Calibration of sound level, frequency and percentage of total distortion of the acoustic signal generated according to IEC 60942: 2003-01, Third edition “Electroacoustics – Sound calibrators – Annex B – Periodic tests.</i>	
Calibration of Sound Calibrator -250hz 114dB in conformance to CEI-60942 : 2003	\$156
Calibration of Sound Calibrator -1000hz 94dB in conformance to CEI-60942 : 2003	\$156
Calibration of Sound Calibrator -1000hz 114dB in conformance to CEI-60942 : 2003	\$156
Package - Calibration Sound calibrator 1000hz-94dB and 1000hz-114dB according to the regulation CEI-60942:2003 (only on specific models)	\$312
<p>To be calibrated, the sound calibrator must allow the calibration of 1 inch or ½ inch diameter microphones.</p> <p>For sound calibrators consisting of more than one level, each one constitutes a calibration. If the level is not specified, two levels will be calibrated.</p>	
Models :	<ul style="list-style-type: none"> - Brüel & Kjaer : 4230 et 4231 - Larson Davis : CAL150 and CAL200 - Quest : QC-10 <p><i>Please note that all models of sound calibrators specified must comply with standards IEC 60942: 2003-01, IEC 60942: 1997-11 or IEC 942: 1988.</i></p> <p>For a sound calibrator model that is not included in this list, please contact Customer Service sac.labo@irsst.qc.ca to obtain confirmation regarding its possible calibration by the Acoustical Laboratory.</p>

Acoustics (cont.)

**Noise dosimeter or
Sound level meter, integrating-averaging sound level meter, sound-level meter – frequency analyzer and
microphone alone (See models below)**

Free field acoustical calibration of the A weighting of the instrument compared to the tolerances of standard IEC 61672-1: 2002-05, First edition, “Electroacoustics – Sound level meters – Part 1: Specifications.”

Acoustical calibration of the frequency weighting is done according to the instructions for tests in sections 9.4.2.2 to 9.4.2.5 of standard IEC 61672-2: 2003-04, First edition, “Electroacoustics - Sound level meters – Part 2: Pattern evaluation tests.”

Acoustical calibration of noise dosimeter	\$260
<p>Acoustical calibration of sound level meter</p> <ul style="list-style-type: none"> • <i>Verifies the instantaneous response of a noise measuring instrument for 39 sound levels and frequencies between 125 Hz and 20 000 Hz</i> • <i>Identifies a problem with the microphone, or minimally, with the Rms value (Fast or Slow) measuring circuit or with the frequency weighting circuit used.</i> • <i>Inappropriate if there is a need for demonstrating, beyond reasonable doubt, the compliance of the measuring instrument with instrument standard IEC 61672-1 (2002-05). In legal metrology, this demonstration is now commonly required (e.g., calls for tender for measuring the noise generated by wind turbines, etc.). Note also that all CSA International Canadian standards in acoustics now stipulate the use of a noise measuring instrument that has been demonstrated compliant with the requirements of IEC 61672-1 (2002-05).</i> 	\$260
Software update	\$104

Acoustics (cont.)

Sound level meter, integrating-averaging sound level meter, sound level meter - frequency analyzer (See models below)

Acoustical and electrical calibration of the instrument according to standard IEC 61672-3: 2006-10, First edition, "Electroacoustics – Sound level meters – Part 3: Periodic tests."

Calibration of sound level meter- acoustical and electrical -1 level, in conformance to 61672-3 : 2006-10

- *This calibration is available only for noise measuring instruments reported by the manufacturer as complying with standard IEC 61672-1: 2002-05, First edition, "Electroacoustics - Sound level meters – Part 1: Specifications."*
- *Includes acoustical calibration as well as all the electrical tests periodically recommended by IEC 61672-3 (2006-10) for a noise measuring instrument.*
- *Required in legal metrology, because the Calibration Laboratory can, following this calibration, issue a declaration on the compliance of the noise measuring instrument with the complete requirements of IEC 61672-1 (2002-05).*
- *The electrical tests stipulated by IEC 61672-3 (2006-10) allow minimum verifications of the following characteristics of a noise measuring instrument: time and frequency weightings, linear operating range, self-generated electrical and acoustical noise, precision of the peak detector, precision of the exposure level calculations, response of the noise measuring instrument to signals of different polarities, initiation level for the overload detection circuit.*

\$520

Software update

\$104

Main models :

- Brüel et Kjaer 2240 and 2250
- Larson Davis – LXT1 series

For a model that is not included in this list, please contact Customer Service sac.labo@irsst.qc.ca to obtain confirmation regarding its possible calibration by the Acoustical Laboratory.

Acoustics (cont.)

Integrating-averaging sound level meter - Brüel and Kjaer, model 2240 only	
<i>Same calibrations as calibration of sound level meter- acoustical and electrical – 1 level (the range from 60-140 dB), with the addition of the electrical tests performed over the range from 30-110 dB, in conformance to 61672-3 : 2006-10</i>	
Calibration of sound level meter- acoustical and electrical -2 levels in conformance to 61672-3 : 2006-10	\$832
Software update	\$104

Lighting

Luxmeter	
5-point linearity calibration	\$312
Models :	<ul style="list-style-type: none"> - Cal-Light 400 - Haghner E2 and EC-1 - Topcon IM-2D <p>For a model that is not included in this list, please contact Customer Service sac.labo@irsst.qc.ca to obtain confirmation regarding its possible calibration by the Acoustical Laboratory.</p>

Chemical measurements – Direct Reading Instruments

CO₂ analyzer

Model: GasAlertMicro5 IR from BW

Calibration of CO₂ analyzer- 3 points calibration according to the measurement scale

\$208

Mercury analyzer

Model: Jerome 405

Calibration without correction with suspension of mercury vapours at room temperature

\$208

Personal detector for CO, NO, NO₂, SO₂, NH₃ and H₂S

Models: PAC 7000, PAC 6500 and PAC 8000

Calibration of personal detector- 3-points calibration according to the measurement scale

\$208

4-Gas detector (explosivity, oxygen, CO, H₂S)

Models: X-am 2000, X-am 2500, X-am 5000 and X-am 8000 from Dräger

Calibration of 4-Gas detector – 2 points calibration of the oxygen sensor, 3 points for the other sensors

\$208

Chemical measurements – Direct Reading Instruments (cont.)

Photoionizer

Models MultiRAE Plus, MiniRAE 3000 and ToxiRAE PROPID

Calibration of photionizer – 2 points calibration with reference to isobutylene

\$208

Indoor air quality analyzer

Models: Fluke 975

Calibration of CO and CO₂ sensors – 3 points calibration

\$208

Calibration of temperature sensors – 9 points calibration

\$156

Calibration of relative humidity sensors - 9 points calibration

\$156

Ozone analyzer

Models POM and GazAlert extreme

Calibration with an ozone generator – 3 points calibration

\$416

Thermohygrometry

WBGT heat stress monitor with datalogger module

WBGT 9-point Temperature calibration of WBGT

\$260

Models :

- RSS-214 DL
- RSS-217

WBGT heat stress monitor with datalogger module

Package – WBGT 9-point Temperature and Relative Humidity calibration

\$416

Model :

QuesTemp 34

WBGT heat stress monitor without datalogger module

WBGT 3-point Temperature calibration

\$416

Model :

- RSS-214
- QuesTemp 30
- QuesTemp 32

Thermohygrometry (cont.)

Dry bulb temperature and relative humidity digital measuring instrument without datalogger module

Package - Thermohygrometer 3-point Temperature and point Relative Humidity calibration

\$312

Models :

- Vaisala HM 34
- Vaisala HM 40

IR Infrared digital thermometer (without contact) without datalogger module

All makes

Thermometer 4-point calibration between 35 and 500°C

\$208

Ventilation

Anemometer	
Models: TSI 8384A and 9535	
15-point calibration	\$416

Flow meters	
<i>Calibration in conformance to ILAC G8 (2009) except if the result is undetermined = failed, which represents a risk level lower than ILAC G8 (2009)</i>	
5-pt calibration for low flow- flow meters	\$338
5-pt calibration for high flow- flow meters	\$338
5-pt calibration for very high flow - flow meters	\$338
Models :	<ul style="list-style-type: none"> - Bios Defender - DC Lite

Pumps

High flow pump	
Models: Gilian Gil Air, Gilian Gil-Air 5, SKC PCXR and Aircheck Touch	
Verification and adjustment	\$156
Low flow pump	
Models: Gilian LFS-113 and SKC Pocket Touch	
Verification and adjustment	\$156
Very High flow pump	
Models: Leland Legacy et Quick take	
Verification and adjustment	\$156
Charger	
Verification	\$104
5-Station charger	
Verification	\$104
Manual pump	
Makes: Draeger and Gastec	
Verification and adjustment	\$104

INSTRUMENT RENTAL - COSTS

Acoustics				
Description	Type / Model	Rental 1 day	Rental 5 business days	Rental 1 calendar month
Sound level calibrator (94 and 114 dB)	BK 4231	\$55	\$137	\$275
Noise dosimeter	Spark 706 (RC)	\$105	\$262	\$525
Portable computer and software	For Spark 706	\$95	\$237	\$475
Integrating sound level meter	BK 2240	\$135	\$337	\$675

Physics measurement				
Description	Type / Model	Rental 1 day	Rental 5 business days	Rental 1 calendar month
Thermohygrometer	HM34C	\$95	\$237	\$475
Luxmeter	CL400	\$105	\$262	\$525

INSTRUMENT RENTAL – COSTS (cont.)

Gas analyzers				
Description	Type / Model	Rental 1 day	Rental 5 business days	Rental 1 calendar month
4-gas detector explosivity meter	X-am 8000	\$200	\$500	\$1000
CO-LC personal detector	PAC 7000	\$105	\$262	\$525
DRI – Indoor air quality	Fluke 975	\$160	\$400	\$800
Formaldehyde detector	Formaldemeter htv-m	\$150	\$375	\$750
Mercury analyzer	Jerome 405	\$160	\$400	\$800
NO ₂ personal detector	PAC 7000	\$105	\$262	\$525
Ozone personal detector	GasAlert Extreme	\$160	\$400	\$800
Personal photoionization detector	ToxiRae PRO PID	\$160	\$400	\$800

INSTRUMENT RENTAL – COSTS (cont.)

Pumps and flow meters				
Description	Type / Model	Rental 1 day	Rental 5 business days	Rental 1 calendar month
5-station charger	Various models	Included in a pumps rental	Included in a pumps rental	Included in a pumps rental
Charger	Various models	Included in pumps rental	Included in pumps rental	Included in a pump rental
Flow meter	Defender	\$75	\$187	\$375
Gastec pump	Gastec	\$60	\$150	\$300
High flow pump	SKC PCXR	\$75	\$187	\$375
High flow pump	Aircheck Touch	\$75	\$187	\$375
Impactor	Andersen N6	\$160	\$400	\$800
Low flow pump	LFS 113	\$75	\$187	\$375
Low flow pump	SKC Pocket Touch	\$75	\$187	\$375
Very high flow pump (for spores)	Leland Legacy	\$75	\$187	\$375
Very high flow pump (30 L/min)	Aircon	\$160	\$400	\$800

INSTRUMENT RENTAL – COSTS (cont.)

Air quality				
Description	Type / Model	Rental 1 day	Rental 5 business days	Rental 1 calendar month
Anemometer	TSI 8384A-M-GB	\$95	\$237	\$475
DRI – for aerosols	Dust Trak II 8530	\$160	\$400	\$800
Impactor with pump	Impactor : SKC Biostage Pump : QuickTake 30	\$130	\$325	\$650
Moisture meter (penetration)	Surveymaster SM	\$75	\$187	\$375

INSTRUMENT RENTAL – COSTS (cont.)

Electromagnetism				
Description	Type / Model	Rental 1 day	Rental 5 business days	Rental 1 calendar month
Static Triaxial Fieldmeter (B)	THM-7025	\$150	\$375	\$750
Ion Meter Kit	Simco 4007273	\$130	\$325	\$650
Laser Distance Meter	Leica Disto A5	\$80	\$200	\$400
Triaxial Teslameter (B, O, P) 5 Hz to 32 kHz	Narda EFA-200	\$250	\$625	\$1250
Triaxial Fieldmeter (B, O, P) 1 Hz to 400 kHz	Narda ELT-400	\$180	\$450	\$900

Notes

E : Electric Field (V/m)

H : Magnetic Field (A/m)

B : Magnetic Density (Tesla)

S : Power Density (mW/cm²)

O : Percentage of the ICNIRP(1998) **O**ccupational Recommendation

P : Percentage of the ICNIRP(1998) **P**ublic Recommendation

INSTRUMENT RENTAL – COSTS (cont.)

Compressed Breathing air				
Description		Preparation costs	Rental 5 business days	Rental 1 calendar month
Compressed Breathing Air case	Costs of analysis not included	\$208	n/a	n/a

Cyclones				
Description	Type / Model	Rental 1 day	Rental 5 business days	Rental 1 calendar month
Cyclone	GS-3	\$30	\$75	\$150
Cyclone, nylon	York- Dorr Oliver	\$30	\$75	\$150
Jar for cyclone calibration	2 liters jar / IP7013376	\$30	\$75	\$150

CONTACT RESOURCES

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For all requests related to instruments, sampling equipment and billing, please contact Laboratory Customer Service at (514) 288 1551, ext. **306** or by e-mail: sac.labo@irsst.qc.ca

For all technical information regarding analyses, please contact Laboratory Customer Service at (514) 288-1551, ext. **315** or by e-mail: sac.labo@irsst.qc.ca