August 12, 2021

Companies Offering Mask and Personal Protective Equipment Recovery Services







COMPANIES OFFERING MASK AND PERSONAL PROTECTIVE EQUIPMENT (PPE) RECOVERY SERVICES¹

- This document is based on information obtained from reclaimers on August 9, 2021.
- Unless a life cycle assessment proves otherwise, the choice of a solution should consider the 4R hierarchy and thus favour, wherever possible and in the following order: reduction at source followed by reuse, recycling and repurpose (waste-to-energy) before disposal at landfills.²
- In April 2021, RECYC-QUÉBEC contracted the International Reference Centre for the Life Cycle of Products, Processes and Services (CIRAIG) to conduct a life cycle assessment (LCA) of disposable protective masks. The purpose of the study was to determine which end-of-life strategy between recycling, waste-to-energy or disposal at landfills had the lowest environmental impact.
- The <u>preliminary results</u> of the life cycle assessment (LCA) show that recycling is the process with the least environmental impact with respect to end-of-life management of disposable procedure masks. More detailed conclusions that have been verified by an independent scientific committee are expected in early 2022.
- In this context where the recycling of disposable procedure masks is the preferred option, the table on the following pages presents the reclaimers based on the 4R hierarchy, while first indicating the reclaimers who send the masks to recycling and then the masks intended for waste-to-energy. The reclaimers are then presented for each category alphabetically by company name.
- Note that the Bureau de normalisation du Québec (BNQ) has certified the very first reusable and washable type of procedure mask. Certified masks are listed on the <u>BNQ's website (BNQ 1922-900 Masks Intended for Working Environments)</u>. CIRAIG's life cycle assessment (LCA) will also review a model that is representative of the certified reusable masks.
- In a context where the purchase of disposable procedure masks is the chosen option, organizations and companies are asked to:
 - o Include at the start of the mask procurement process the costs associated with recovery and end-of-life management (recycling/reclamation).
 - o Form groups in obtaining recovery services, which may help reduce costs.
 - Contact waste recovery companies directly for the associated costs and terms and conditions, as well as the collection and recovery options already provided by the company regionally, which will enable an informed decision to be made that is applicable to the needs and context.
 - Enquire from the start about the accounting procedure offered by waste recovery firms: report of
 quantities recovered (weight/volume), guaranteed destination (processing site), traceability
 certificate, external audit, etc. It is recommended that these elements be included in the tender
 specifications and/or to discuss it with waste recovery companies to add it to the contract.

IMPORTANT

- → Please refer to the <u>public health guidelines</u> applicable to your context.
- → PPE MUST NOT BE PUT in recycling or organic waste bins, or flushed down the toilet.
- → If you do not have access to a reuse or recycling solution, see the <u>guidelines issued by RECYC-QUÉBEC</u>.

¹ PPE is equipment worn by a worker to minimize exposure to specific hazards. Examples of PPE include respirators, gloves, aprons, fall protection, and full body suits, as well as head, eye and foot protection. Using PPE is only one element in a complete hazard control program that would use a variety of strategies to maintain a safe and healthy environment. PPE does not reduce the hazard itself nor does it guarantee permanent or total protection. (Ref.: CCOHS)

² Quebec Residual Materials Management Policy, EQA



OPTION 1: RECOVERY FOR RECYCLING IN QUEBEC

COMPANY	CONTACT INFORMATION	ACCEPTED MATERIALS	REGIONS COVERED	SERVICE PROVIDED	TYPE OF PROCESSING	PROCESSING LOCATION	GUARANTEES AND TRACEABILITY	ADDITIONAL INFORMATION
go zer⊕	Head Office 2201 Tanguay, Magog, Quebec J1X 7K7 info@gozerorecycle.com 1-873-888-6139 There are partnerships in place with regional organizations for collection. See the page for collection points to find the nearest one.	 Procedure masks N95 respirator masks Disposable gloves Isolation gowns Visors and protective goggles Disinfecting wipes Hair covers All brands	All across Quebec	Go Zero recycling boxes Collection service by box that includes: - Delivery - Collection - Decontamination - Sorting - Transformation (ready for manufacturing a new product) A recovery service is available free of charge to customers who purchased MedSup Medical masks	The masks are put in quarantine, disinfected and sorted. The various materials are then separated (elastic strap, nose clip, soft part of the mask). The soft part of the mask (polypropylene) is then shipped to a recycler that produces plastic beads used to manufacture finished products. The metal in the nose clip is recycled.	Box receiving, sorting and dismantling are then done in several areas, including Montréal, Québec City, Magog, Alma, Sorel-Tracy and Drummondville The polypropylene is extruded in pellets by a plastics recycler in the Montérégie region (Exxel Polymers) and then incorporated into recycled content products by manufacturers specialized in injection and extrusion moulding, namely in Quebec. The metal in the nose clip is shipped to local recyclers, including Sinobec in Montréal.	A recycling certificate is automatically emailed to customers. Details on the traceability system are available at Go Zero's website Go Zero agrees at any time to have the processing and recycling audited by an independent third party, the costs of which are to be assumed by the client.	See the Go Zero Recycle website for more details



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MultiRecycle	Head Office 31 Saint-Joseph Blvd. Lachine, QC H8S 2K9 514-333-7221 info@multirecycle.com	- Procedure masks - Latex gloves - Visors - Glasses - Gowns	All across Quebec (remote area fees may apply).	Collection service by box that includes: - Delivery of box - Collection - Transport - Processing - Recovery certificate - Annual reporting	Masks are collected and shredded. The materials are then separated mechanically and by optical sorting (polypropylene (PP), metal in nose clips, and elastic straps). The plastic is then extruded, filtered and formed into beads. The metal and elastic are sent to recycling.	The masks are shipped whole to SCS in Saint-Eugène-de-Grantham, Quebec, for recycling. - The lots are received by Multirecycle in Lachine, Quebec - Shredding / granulation by SCS in Saint-Eugène-de-Grantham, Quebec - Separation and optical sorting: SCS in Drummondville, Quebec - Extrusion / Transformation into beads: subcontracted in Quebec The PP beads are then incorporated into recycled content products, in particular by Quebec manufacturers specialized in injection moulding	A recovery certificate is provided after each collection. This document contains the recycled weight by category of materials. (The box is not opened for weighing; what is indicated on the certificate is the total weight of the contents.) Recycler SCS is also able to handle traceability. MultiRecycle agrees to have the materials processing audited by an independent third party, but the client must assume the costs.	See MultiRecycle's website for more details

COMPANY	CONTACT INFORMATION	ACCEPTED MATERIALS	REGIONS COVERED	SERVICE PROVIDED	TYPE OF PROCESSING	PROCESSING LOCATION	GUARANTEES AND TRACEABILITY	ADDITIONAL INFORMATION
JШGЗ	Head Office 2355 Rue de Celles, Suite 200, Québec City, QC G2B 2C8 maika@jwg.ltd 418-476-0140 #3	All types of procedure masks	All across Quebec	Collection service by box that includes: - Delivery of box - Prepaid return shipping () - Processing	Masks are collected, sterilized and transformed into plastic pellets, which are then used to create non-woven fabric for masks, disposable isolation gowns and injection-moulded products used in the health care sector.	The masks are shipped whole to <u>Lifecycle Revive</u> in Brantford, Ontario, for recycling.	A recovery and processing certificate is provided at the client's request, along with an annual report of the results JWG agrees at any time to have the processing and recycling audited by an independent third party, the costs of which are to be assumed by the client.	See JWG's website for more information
TERRACYCLE	Head Office 1 TerraCycle Way, Trenton, NJ 08638, USA 1-800-758-2943 customersupport@terracyc le.ca	- Procedure masks - Gloves (nitrile, latex, PVC) - Other PPE: safety glasses, clothing, hair and beard covers, etc.	All across Quebec	Collection service by box that includes: - Delivery of box - Collection - Transport - Processing	The masks are densified and recycled into delivery pallets or railway ties. The gloves are powderized and recycled into rubber surfaces (e.g. floor tiles, play areas or athletic fields).	The boxes are received and the contents sorted in Fergus, Ontario – manual sorting by type of equipment, then based on composition and processing requirements. The masks are then shipped to SCS (same process as described on the previous page) Gloves and other mixed PPE are sorted in New Jersey; gloves are recycled in Ohio (USA).	Annual statistics and the processing guarantee certificate are provided upon request (once a year) Terracycle agrees at any time to have the processing and recycling audited by an independent third party, the costs of which are to be assumed by the client.	Visit TerraCycle's website for more details

COMPANY	CONTACT INFORMATION	ACCEPTED MATERIAL S	REGIONS COVERED	SERVICE PROVIDED	TYPE OF PROCESSING	PROCESSING LOCATION	GUARANTEES AND TRACEABILITY	ADDITIONAL INFORMATION
SANEXEN In partnership with NI Récupération Inc. Traceability handled by OPTEL	Head Office 9935 Rue de Châteauneuf Door 1 – Suite 200 Brossard, Quebec J4Z 3V4 514-VIRUS-19 (514-847- 8719) 1-800-263-7870 (ask for the BOX-19 team) virus19@sanexen.com	- Procedure masks - Face coverings - Gloves - Other PPE, singleuse or not (e.g. visors, glasses, disinfecting wipes, coveralls, apron, gown, ear plugs, head and beard covers)	All across Quebec	Main steps: - Delivery of bin (different sizes based on needs) - Regular collection - Bin disinfection - Transport - Processing - Traceability	Two options at the customer's choice: Waste-to-energy and recycling (metal nose clips are fully recyclable) or Substitute fuel and use of energy for soil decontamination.	Processing (at customer's choice): Production of alternative fuel by RSI Environmental in Saguenay-Lac-Saint-Jean or - Waste-to-energy by Covanta in Niagara Falls, NY, USA Preprocessing and compacting at Chambly transfer centre	Processing guarantee Processing certificate sent to customer. Traceability Traceability certificate provided to customer. Traceability system managed by Optel. To ensure that the materials were collected and disposed of in accordance with applicable regulations and to generate environmental data (including GHGs and/or quantity of energy produced). Statistics provided only to customers where the quantities require an exclusive truck for their collection.	See Sanexen's website for more information