



October 3, 2022

Mr. Renante Marante
City of Chicago
Department of Public Health
333 South State Street, 2nd Floor
Chicago, Illinois 60604

**Re: Packers Recycling and Transfer Facility
Addendum to Application for Waste Handling Facility
Permit Expansion and Modification
CEC Project 130-134**

Dear Mr. Marante:

On behalf of Lakeshore Recycling Systems, LLC (LRS) and Oscar (IL), LLC, this letter and attachments are submitted as an addendum to an April 29, 2022 application (Application) to modify the transfer station facility permit from the City of Chicago Department of Public Health (CDPH) regarding the Packers Recycling and Transfer Facility at 4121 South Packers Avenue in Chicago (site). The Application requests to modify the facility boundary and design, including demolishing the existing facility and redeveloping the site with a new, state-of-the-art transfer and recycling building and all new infrastructure. The site will accept municipal solid waste, construction and demolition (C&D) waste, and single-stream recyclable material.

On September 16, 2022, the CDPH provided comments which request additional information to complete their review. This submittal provides the additional information requested by the CDPH. For ease of review, the CDPH comment is listed in bold below followed by the corresponding response.

- 1. Pursuant to 12.3 of the Rules, provide the plans and drawings by Hutter Architects, LTD that were referenced in the Zoning Board of Appeals (ZBA) Minutes of Meeting (CAL. No. 435-21- S) dated October 15, 2021, or confirm that the plans and drawings provided as Drawings A000, A201, A200, and L100 in the Application are substantively the same as those referenced in said Minutes of Meeting.**

Response

The Hutter Architects Ltd. Drawings A100, A201, A200, and L100 are substantively the same drawings as referenced in the October 15, 2021 Zoning

Board of Appeals Minutes of Meeting (see Appendix F-3 of the Application) provided in the drawings by Hutter Architects Ltd. attachment to the Application. Please note that each of the drawings contain a revision block which notes the date of and shows the respective revisions (e.g., in a referenced “bubble”).

- 2. Pursuant to 12.4.11.3, provide an operating and maintenance plan for all structures and fixed equipment. Such plan shall include best management practices (BMPs) that ensure the safe operation of these structures and equipment, and minimizes impacts to the environment and surrounding properties, including compliance with applicable noise, air, and water quality standards. The plan must also provide standard operating procedures (SOPs) in the routine cleanout of floatables and settled solids from the Stormtrap detention system.**

The Applicant may submit the current plan for its existing operations at the Facility. CDPH will later require the submittal of an updated plan for the expanded operations and new site improvements, as a special condition of the permit.

Response

The structures and fixed equipment that will be included in the operations and maintenance plan are the following:

- The stormwater management system;
- The misting system; and
- The processing equipment for the source-separated recyclables (SSR) and C&D systems.

The stormwater management system is described in the Application and includes an approximately 145,000 cubic foot underground detention system manufactured by StormTrap. The maintenance program for the stormwater management system will include the following.

- Weekly inspection of the inlet filters on the approximately twenty stormwater manholes (see Sheet 300 - Utility Plan provided with the Application) and cleaning/change out of the inlet filters, as needed.
- Weekly inspection of the outlet access manhole (see Sheet 300 - Utility Plan provided with the Application) to make sure the outlet orifice is not blocked by debris or any foreign materials. The outflow from the StormTrap

underground detention system has a 5.5-inch diameter orifice, controlling the flow rate to the city's sewers.

- Annually measuring the amount of sediment buildup at the bottom of each manhole and removing excessive sediment buildup using a hydro vacuum truck, as needed.
- The StormTrap underground detention system will be a dry detention system. The manufacturer recommends that a dry detention system should be cleaned whenever the sediment occupies more than 10–15% of the system original design volume. The detention system will be cleaned via jetting and hydro vacuum if the detention volume in the system is determined to be greater than 15% of the original design volume.

The misting system is described in Item 7. The operation and maintenance of the misting system includes the following.

- Daily inspection and cleaning, as needed;
- Change nozzles and repair system as needed; and
- Purge conveyance lines and nozzles with compressed air when those portions of the system are shut off (so the system cannot freeze during cold weather).

The processing equipment for the C&D recycling system includes the following.

- Infeed conveyor;
- Vibratory screening unit;
- Additional conveyors;
- Magnetic separator;
- Secondary screen;
- Final separation; and
- Sorting line.

The general layout of the equipment is shown on the figure in Attachment 2. The processing equipment for the SSR sorting system includes the following.

- Separation of sizes via mechanical screening;
- Glass separation and breaking;
- Pneumatic separation of containers (bottles, cans, plastic);
- Manual sorting of fibers;
- Storage hoppers;
- Baler infeed conveyors;

- Hydraulic baling presses; and
- Compressed air system supplying all pneumatic sorting equipment.

The SSR and baling equipment will be operated as needed to appropriately separate and prepare for transportation the incoming commingled SSR. Similarly, the C&D recycling equipment will be operated to separate and allow for recycling as much of the incoming C&D materials as practical. Maintenance of the various equipment will include the following.

- Daily inspection and cleaning, as needed.
- Lubrication and oil changes as recommended by the manufacturer.
- Periodic shutdown and preventive maintenance as recommended by the manufacturer.
- Tracking of conveyor belts (i.e., adjustments so conveyor belts track correctly on rollers and slider beds).

Dust associated with the C&D recycling process will be controlled by using a water misting system located at all dust generation points. The anticipated locations of the water misting nozzles are shown on the figure in Attachment 2. The dust suppression system would operate whenever the C&D recycling system is operating, and also purged with compressed air when stopped.

- 3. Pursuant to 12.4.17.1 and 12.4.17.2 of the Rules, provide a description and specifications of the fencing surrounding the Facility (e.g., height, material, etc.).**

Response

Fencing will be provided around the entire site perimeter as shown on Drawing L100 (previously provided in drawings by Hutter Architects Ltd.). In general, the fencing along the frontage of Packer's Avenue will be a wrought iron fence, and the fencing around the majority of the perimeter (noted as "New Security Fence" on Drawing L100) will be a 6-foot chain-link fence. Details of the fencing are provided on Drawing L101 included as Attachment 1.

- 4. Pursuant to 14.4, provide the make and model of the mechanical street sweeper. Such street sweeper shall be equipped with a water spray and vacuum system. The Applicant may propose sweepers incorporating newer technologies that use less water or are waterless and are PM10-certified by Canada's Environmental Technology Verification, the South Coast Air**

Quality Management District of California, or other certifications approved by the Commissioner.

Response

The following (or equivalent) street sweeper is planned to be used to service the site, which will be equipped with a water spray and vacuum.

- Make: Elgin;
- Model: Crosswind;
- Chassis: Freightliner M2 with Cummins Motor; and
- Attachments: Sweeper brooms, vacuum, water sprayers.

- 5. Pursuant to 14.14 of the Rules, provide a maintenance plan that ensure the long- term integrity and effectiveness of site pavements in controlling mud and dust.**

Response

All of the outside traffic areas will consist of 8-inch thick concrete with woven fabric reinforcement over a densely compacted subgrade. The only asphalt area will be the employee parking area (see figure in Attachment 4).

A vacuum sweeping unit (as discussed in Item 4) will be maintained and used on-site for cleaning of all paved surfaces, and a mobile water spraying device will be available for surface dust control. The vacuum sweeping unit will be used as needed to minimize the presence of mud on internal traffic areas. Since all heavy truck traffic areas will be concrete, minimal mud is anticipated. Production shift supervisors will be responsible for monitoring wind conditions and employing dust control measures as necessary. Spraying water systems will be made available in all process and transfer areas to assist in dust control and will be used on an as needed basis.

- 6. Pursuant to 14.17 of the Rules, to assess potential noise impacts, provide a list of all activities that may be conducted outdoors between the hours of 8:00 p.m. to 8:00 a.m. In addition, provide the following information for each outdoor mechanical equipment/device, including but not limited to air pollution control devices, blowers, fans, pumps, motors, and generators that may be operated over the above hours:**

- **brief description, make and model number;**
- **physical dimensions in meters,**
- **sound power, or sound pressure reading and measurement distance,**

- **location in UTM coordinates, and**
- **installation height in meters.**

Response

No outdoor activities will be performed between 8:00 p.m. and 8:00 a.m. In addition, no outdoor mechanical equipment will be operated during that time period.

- 7. Pursuant to 14.18 of the Rules, provide details on the Facility's odor control system, including the location of all spray nozzles, storage tank, and pumps. In addition, provide a demonstration that the system is appropriately sized and capable of neutralizing odors at the Facility. Finally, demonstrate that any odor-neutralizing chemical used is not harmful to workers and the environment, as applied at the Facility.**

Response

The site will use an odor control system from ECOSORB [www.ecosorbindustrial.com]. ECOSORB services a variety of markets, including MSW transfer stations, and provides custom formulated products and unique delivery systems. The odor control system for the site will consist of a misting system including a holding/mixing tank, pumps, conveyance lines and spray nozzles. The system is designed as constant pressure so the spray range and flow are consistent at each nozzle. The figure in Attachment 2 shows the planned location of the storage tank and nozzles. In general, nozzles are positioned at all ingress/egress doors and below the roof ridge vents.

The misting system will operate on an on/off cycle time, which is adjustable by the operator. Each zone is also able to be independently zoned controlled. The applicable zones of the misting system will be operated when substantive odor is observed in the transfer building near those zones.

The misting system will use the ECOSORB Odor Neutralizer CNB100 liquid for dispersion and odor neutralization. Attachment 5 contains a safety data sheet from ECOSORB indicating that the odor-neutralizing compound is made from biodegradable ingredients, and is not harmful to workers or the environment when use appropriately.

- 8. Pursuant to 14.19 of the Rules, provide a dust plan for the prevention or minimization of dust emissions occurring both on and off-site. If handling or storing any materials outdoors, such plan shall include measures to control and suppress dust such as dust cannons or other fine misting systems, full or**

partial enclosures, and/or wind screens. In addition, the dust plan shall describe measures for controlling dust during freezing temperatures, or alternatively, use dry systems that capture and filter dust without water.

Response

No outdoor handling or storage of materials is proposed at this time. Dust control for routine vehicle movements is discussed in Item 5.

- 9. Pursuant to 15.8 of the Rules, provide a demonstration that the transfer building is adequately ventilated for worker health, safety, and comfort, particularly when overhead doors are closed to prevent the escape of dust or odors. Such demonstration shall include a documentation that the building complies with all pertinent building code requirements pertaining to natural or forced air ventilation, and a worker personal sampling plan to be conducted post-operation, to confirm compliance with OSHA standards for maximum dust levels in an occupied space.**

Response

Attachment 3 contains a letter from Hutter Architects Ltd. dated September 8, 2022, which indicates that the building meets and exceeds the natural ventilation requirements in the Department of Buildings Ventilation Code when the doors are open.

LRS will periodically perform personal air sampling to quantify potential employee exposures during normal operations. Monitoring will be conducted in accordance with established industrial hygiene practices and Occupational Safety and Health Administration (OSHA) standards and may be modified at the discretion of LRS and based on recommendations from the industrial hygiene firm. Monitoring is anticipated to include the following.

- Monitoring for total dust, respirable dust, respirable crystalline silica, lead and asbestos during normal operations for a representative number of employees at representative locations of exposure (e.g., sorting, tip floor, operators, traffic control, general laborers, and C&D work areas). Monitoring will be collected with low-flow air sampling pumps attached to workers' breathing zones.
- Personal noise dosimetry sampling in areas where employees may be subjected to sound levels exceeding OSHA standards to assist in identifying those employees for inclusion in the hearing conservation program and assist in the proper selection of hearing protectors.

- 10. Pursuant to 15.9 of the Rules, provide a demonstration that the internal roads are designed to withstand the expected loads at the Facility. In addition, confirm CDPH's understanding that all outdoor areas will be paved with concrete.**

Response

All outdoor truck traffic areas will consist of 8-inch thick concrete with woven fabric reinforcement over a densely compacted subgrade, which is a standard industry design for heavy vehicle traffic and will withstand the expected loads. The only asphalt area will be the employee parking area. Attachment 4 contains a figure showing the concrete, asphalt, and landscaped areas.

If you have any questions or comments regarding this submittal, please feel free to contact us at (630) 963-6026.

Very truly yours,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



Scott A. Dawson, P.G., R.G.
Project Manager

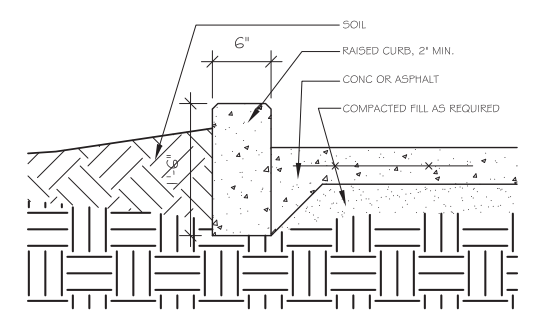


John E. Hock, P.E.
Vice President

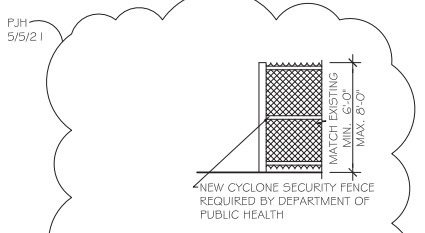
Enclosures: Attachment 1 - Drawing L101 Landscape Plan Details
Attachment 2 - Process Plan with Misting Equipment
Attachment 3 - Hunter Architects Ltd. Letter
Attachment 4 - Location of Proposed Engineered Barrier
Attachment 5 - Safety Data Sheet ECOSORB® CNB 100

cc: Mr. Richard Golf, Lakeshore Recycling Services, LLC (*electronic delivery*)
Mrs. Chastity Lee, Lakeshore Recycling Services, LLC (*electronic delivery*)
Mr. John Koty, Sandman, Inc. (*electronic delivery*)

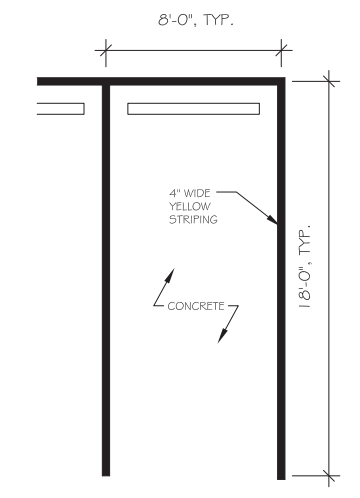
ATTACHMENT 1



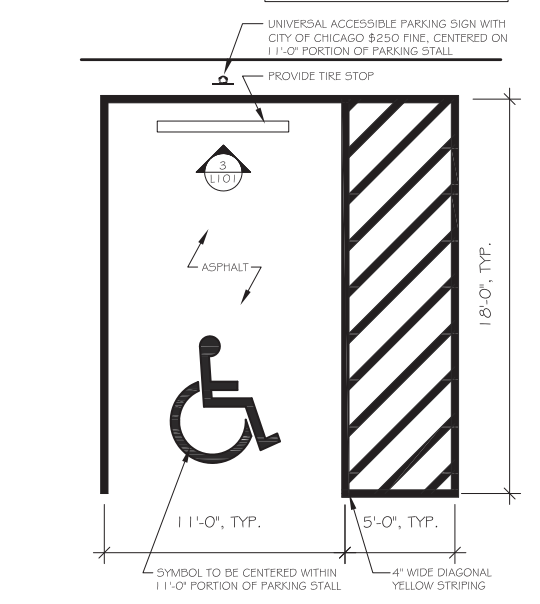
9 CONCRETE CURB DETAIL
L101 SCALE: 1" = 1'-0"
NOTE: NO CURB AT PERIMETER OF PARKING



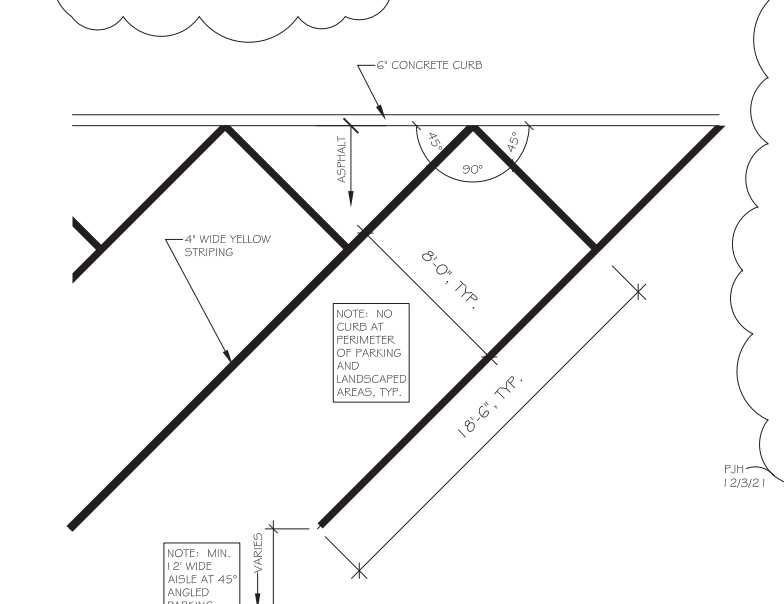
10 SECURITY FENCE DETAIL
L101 SCALE: NTS



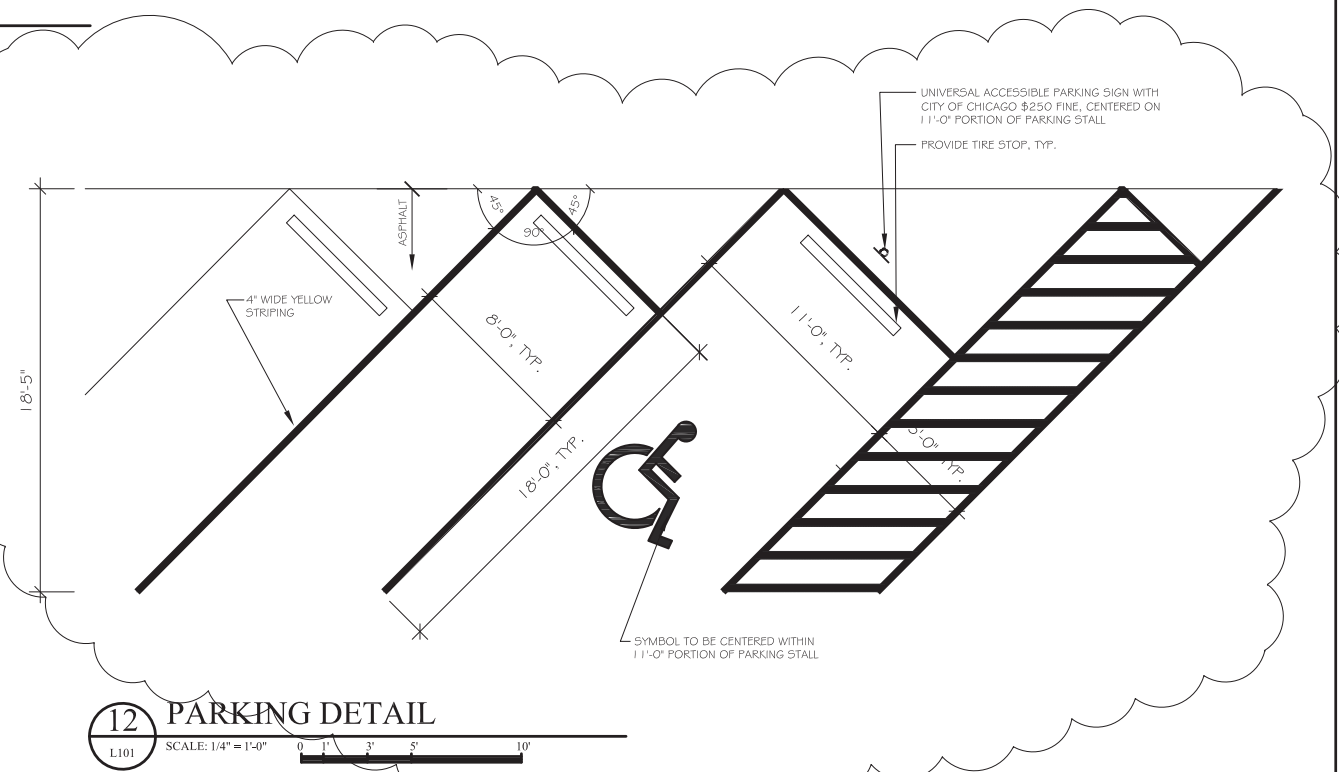
11 PARKING DETAIL
L101 SCALE: NTS



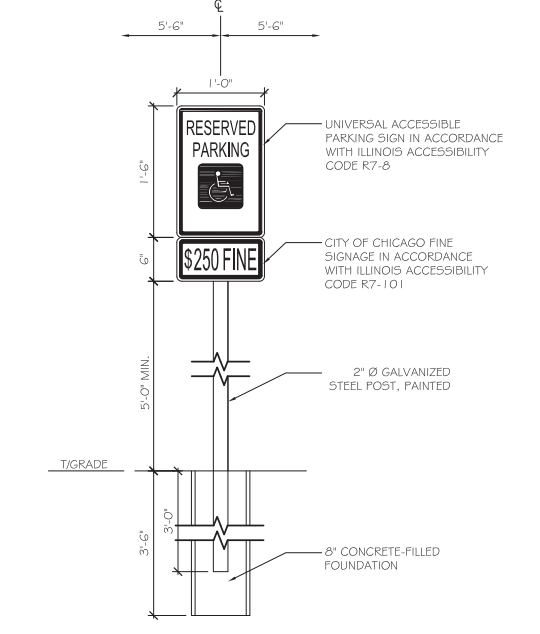
1 PARKING DETAIL
L101 SCALE: 1/4" = 1'-0"



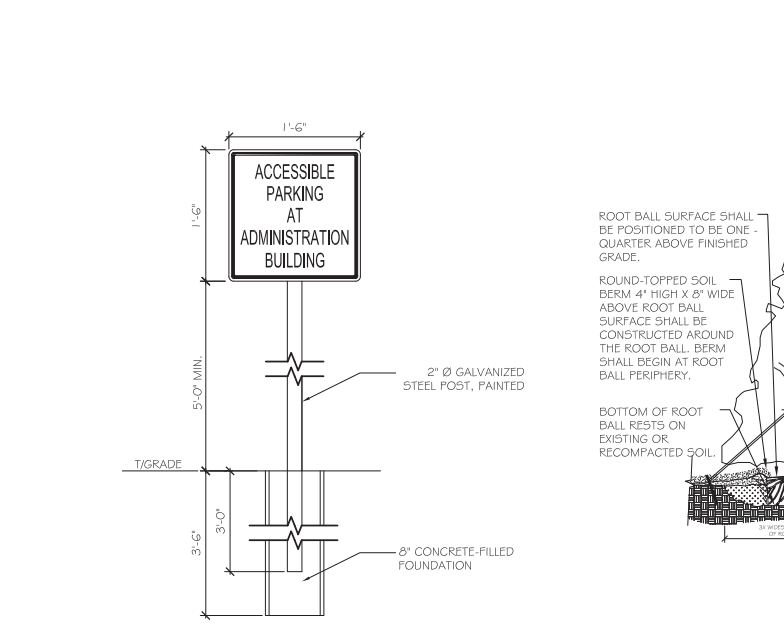
2 PARKING DETAIL
L101 SCALE: 1/4" = 1'-0"



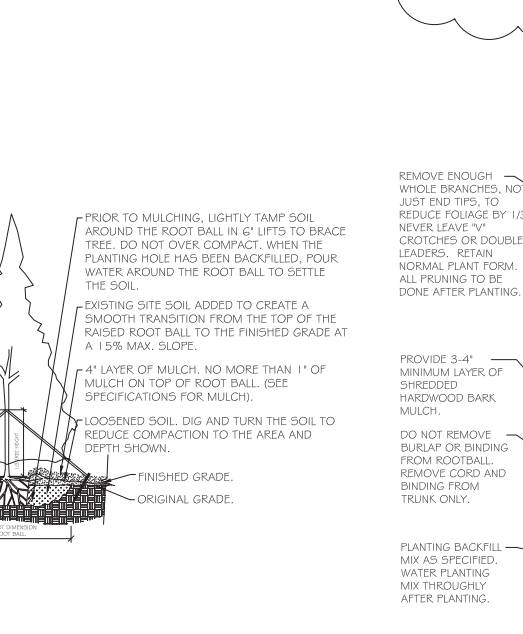
12 PARKING DETAIL
L101 SCALE: 1/4" = 1'-0"



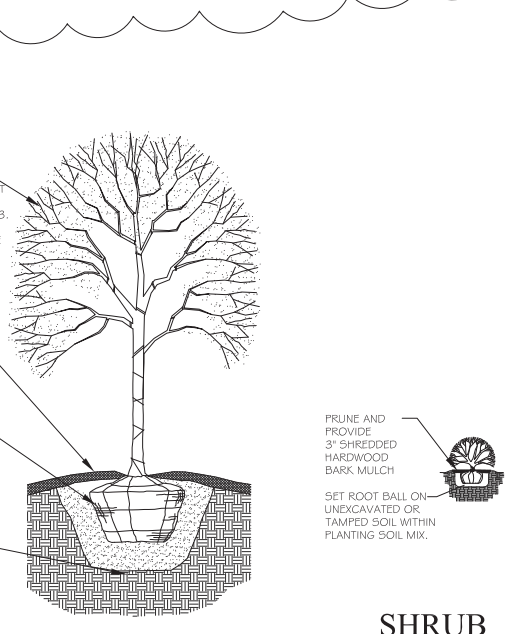
3 SIGN DETAIL
L101 SCALE: NTS



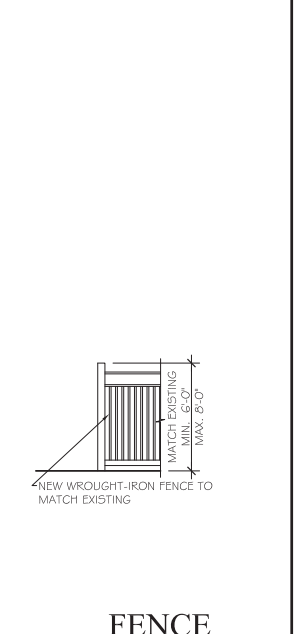
4 SIGN DETAIL
L101 SCALE: NTS



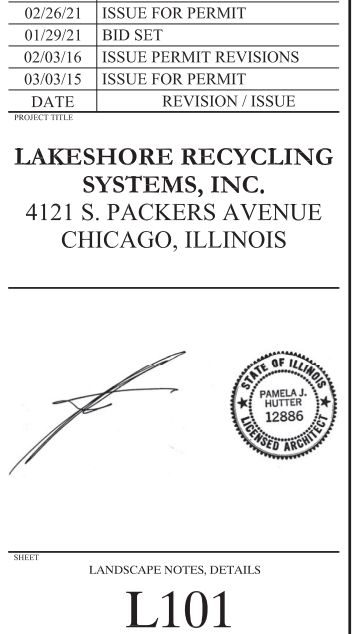
5 TREE DETAIL
L101 SCALE: NTS



6 TREE DETAIL
L101 SCALE: NTS



7 SHRUB DETAIL
L101 SCALE: NTS



8 FENCE DETAIL
L101 SCALE: NTS

2019 CHICAGO BUILDING CODE

DATE	REVISION / ISSUE
12/03/21	ISSUE PERMIT REVISIONS
11/04/21	ISSUE FOR CONSTRUCTION <input checked="" type="checkbox"/>
10/15/21	ISSUE FOR ZBA REVIEW - B
10/13/21	ISSUE FOR PERMIT
08/13/21	ISSUE FOR PERMIT
08/04/21	ISSUE FOR PERMIT
06/29/21	ISSUE FOR PERMIT
06/24/21	BID SET
02/26/21	ISSUE FOR PERMIT
01/29/21	BID SET
02/03/16	ISSUE PERMIT REVISIONS
03/03/15	ISSUE FOR PERMIT

LAKESHORE RECYCLING SYSTEMS, INC.
4121 S. PACKERS AVENUE
CHICAGO, ILLINOIS

STATE OF ILLINOIS
PAMELA J. HUTTER
12886
LICENSED ARCHITECT

SHEET LANDSCAPE NOTES, DETAILS

L101

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ATTACHMENT 2

ATTACHMENT 3

Design & Management

HUTTER ARCHITECTS LTD.

401 N. Michigan, Suite 1200

Chicago, Illinois 60611

312.492.8000

www.hutterarchitects.com

September 28, 2022

Renante Marante
Environmental Engineer
Chicago Department of Public Health
333 S. State Street, Suite 200
Chicago, Illinois 60604

**Re: Natural Ventilation
Lakeshore Recycling Systems Inc,
4121 S. Packers Avenue, Chicago, Illinois**

Mr. Marante:

As the Architect of the above referenced project, I have been asked to comment on the natural ventilation available at the site and especially relative to the planned overhead door openings in the building.

Active Storage, the appropriate use listed in the Department of Buildings Ventilation Code (CBC 18-28-403), requires a Supply of 0.5 CFM/SF or 0.5 CFM of air movement for each square foot of floor area. Active Storage simultaneously requires Exhaust of .5 CFM/SF or 0.5 CFM of air movement for each square foot of floor area.

The average annual wind speed out of either the prevailing southwest or northeast is 10 mph. We find that the dimensions and locations of the overhead door openings in each of three sections of the building 1.) C&D, 2.) Solid Waste Transfer and 3.) Single Stream Curbside all support Natural Ventilation in each distinct section of the building. When the wind speed is 10 mph the CBC 18-28-403 Ventilation Code is met 17 times over.

Note that Natural Ventilation is a Low Energy / Low Carbon footprint solution.

Additionally, all the overhead door openings will be fitted with a misting system available for use at all times. The misting system operating especially at each downwind door will prevent odor if present from leaving the building.

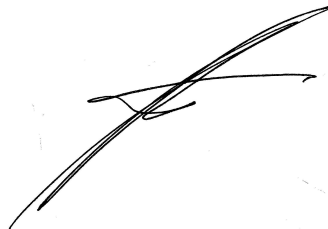
The natural ventilation occurs when the Overhead Doors are open. The Overhead Doors will be open when Labor is in the building. When the Overhead Doors are closed, there will not be Labor in the Building.

Please let us know if you have any questions.

Respectfully,

HUTTER Architects, Ltd.

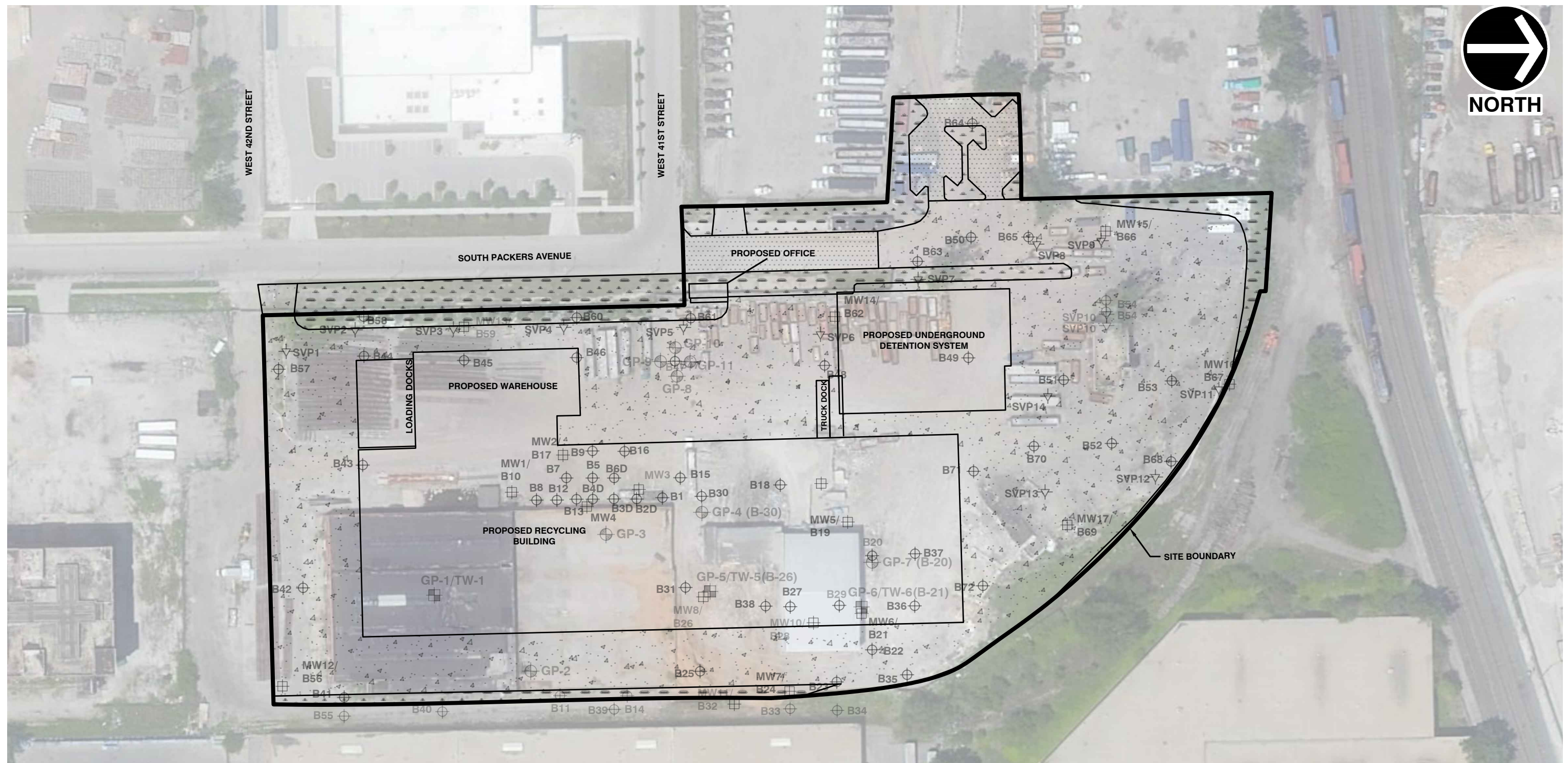
Pamela J. Hutter
Architect



Copy: Mr Richard Golf
Mr. John Koty

ATTACHMENT 4

F:\2019\192-520\192-520-CADD\DWG\EN02-RAP Dec 2021\192520-EN04-E107-Engineered Barrier Location Map Rev.dwg\FIGURE 7\LS:(12/15/2021 - Itorres-aguilera) - LP: 12/15/2021 2:32 PM



REFERENCE

1. AERIAL OBTAINED FROM GOOGLE EARTH AND DATED MAY 6, 2018.

NOTE

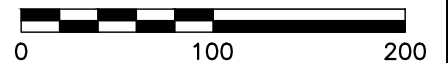
1. THE ENTIRE SITE WILL BE COVERED BY AN ENGINEERED BARRIER. THE ENGINEERED BARRIER WILL MAINLY BE THE CONCRETE FLOOR OF THE BUILDING, THE CONCRETE PARKING LOT, LANDSCAPED AREAS ALONG PORTIONS OF THE SITE PERIMETER, AND THE ASPHALT PARKING LOT.

LEGEND

- PROPERTY BOUNDARY
- PROPOSED CONCRETE SURFACE
- EXISTING/PROPOSED ASPHALT SURFACE
- PROPOSED LANDSCAPED AREA
- SOIL BORING
- MONITORING WELL
- SOIL VAPOR POINT
- CEC SOIL BORING
- CEC SOIL BORING & TEMPORARY WELL

*HAND SIGNATURE ON FILE

SCALE IN FEET



<p>Civil & Environmental Consultants, Inc. 1230 East Diehl Road, Suite 200 - Naperville, IL 60563 630-963-6026 · 877-963-6026 www.cecinc.com</p>		<p>LAKESHORE RECYCLING SYSTEMS, LLC 4121 S. PACKERS AVE. (1300 W. EXCHANGE) CHICAGO, ILLINOIS LPC#0310930005</p>	
<p>LOCATION OF PROPOSED ENGINEERED BARRIER</p>			
DRAWN BY:	LTA	CHECKED BY:	SAD
DATE:	12/15/2021	DWG SCALE:	1"=100'
APPROVED BY:	JEH*	PROJECT NO.:	192-520.0004
			FIGURE NO.:
			7

ATTACHMENT 5

SAFETY DATA SHEET

ECOSORB® CNB 100

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY:

PRODUCT IDENTIFIER: ECOSORB® CNB 100

RECOMMENDED USE: ODOR NEUTRALIZER

SUPPLIER: OMI Industries
One Corporate Drive, Suite 100
Long Grove, Illinois 60047
USA

TELEPHONE No.: (847) 304 9111

EMERGENCY TELEPHONE No.: (800) 662 6367, Monday – Friday, 8 am – 5 pm (CST)

2. HAZARDS IDENTIFICATION:

UNITED STATES (US)
According to OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture:
OSHA HCS 2012 None – Not classified

Label elements:
OSHA HCS 2012
Pictograms: Not applicable
Signal word: Not applicable
Hazard Statements: Not applicable
Precautionary statements: Not applicable
Suggested: P501 Dispose of contents/container in accordance with local, regional, national and/or international regulations.

ADDITIONAL INFORMATION:

Product is a proprietary blend of essential oils, surfactant, and water. Product is not considered hazardous according to the Federal Hazard Communication Standard (29 CFR 1910.1200). All Ingredients are on the TSCA Chemical Substance Inventory, Australian AICS, Canadian DSL, Japanese ENCS, and Korean ECL.

European Inventory Status: EINECS: Existing components according to the definition in the 7th Amendment to Directive 67/548/EEC. All starting materials (ingredients) and final components and additives of product ECOSORB® CNB 100 are listed in EINECS.

HMIS Classification: Health 1; Flammability 0; Reactivity 0; Protective Equipment B.

WHMIS – Compound is not classified as controlled. ECOSORB® CNB 100 is not a controlled product in Canada.

All individual ingredients of this material have a known acute toxicity.

Keep out of reach of children.

Other hazards which do not result in classification:
Eye contact may cause mild irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS:

SUBSTANCE: Material does not meet the criteria of a substance.

MIXTURE:

Chemical Nature: Product is a proprietary blend essential oils, surfactant and water.

Chemical Name:	Common Name	CAS No.:	Weight %:
PROPRIETARY BLEND (Trade Secret) OF PLANT EXTRACTS (ESSENTIAL OILS)	Essential Oil Blend	N/A	1-20%

The specific chemical identity and exact percentages of this composition has been withheld as a trade secret.

4. FIRST AID MEASURES:

NECESSARY FIRST AID INSTRUCTIONS:

INHALATION: Move to fresh air if necessary.

INGESTION: Do not induce vomiting. Position to avoid aspiration should vomiting occur. Drink several glasses of water. Call a physician or poison control center if symptoms persist.

SKIN: Remove contaminated clothing and flush the skin with plenty of water and soap.

EYE CONTACT: Flush eyes immediately with plenty of water for 15 minutes.

DISCRIPTION OF MOST IMPORTANT SYMPTOMS: None known

RECOMMENDATION FOR IMMEDIATE MEDICAL CARE: Show this SDS to the doctor in attendance.

5. FIRE FIGHTING MEASURES:

RECOMMENDATION OF SUITABLE EXTINGUISHING EQUIPMENT:

Suitable extinguishing media: This material is not flammable. Use extinguishing media for surrounding fire. Dry chemical, foam, carbon dioxide, water fog.

Flash Point: None

SPECIFIC HAZARDS ARISING FROM THE MIXTURE: None

Unusual fire and explosion hazards: None

RECOMMENDATION FOR FIREFIGHTERS

Firefighters should wear full protective clothing including self-contained breathing apparatus.

Special firefighting procedures: None

6. ACCIDENTAL RELEASE MEASURES:

PERSONAL PRECAUTION AND PROTECTIVE EQUIPMENT: Do not eat, drink or smoke while cleaning up. Wearing eye protection and impervious gloves is recommended.

EMERGENCY PROCEDURES: Wearing eye protection and impervious gloves is recommended.

METHODS AND MATERIALS: This is a non-hazardous waste suitable for disposal at an approved waste facility.

CLEAN UP PROCEDURE: Collect with absorbent materials and dispose of according to local regulations.

PRECAUTIONS TO PROTECT THE ENVIRONMENT: None required.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wearing eye protection and protective gloves is recommended. Use good personal hygiene practices. Wash hands before eating, drinking or smoking.

CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES: Keep out of reach of children. Store in a tightly closed container in a cool and dry area between 40°F (4°C) and 85°F (29°C). Allowing product to freeze is likely to cause layering. Not compatible with oxidizing agents.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION:

OSHA PEL

Component Name	Exposure Limits	Notes
No OSHA PEL assigned.		
Minimize exposure in accordance with good hygiene practice.		

ACGIH TLV

Component Name	Exposure Limits	Notes
No ACGIH TLV assigned.		
Minimize exposure in accordance with good hygiene practice.		

ENGINEERING CONTROLS:

Provide adequate ventilation.

PERSONAL PROTECTIVE MEASURES:

Protective equipment: None required

Respirators: None required

Eye protection: Recommended

Protective clothing: Impervious gloves recommended.

Other protection: None required

Hygienic work routines: Wash with soap and water before eating, drinking and smoking.

SPECIAL REQUIREMENTS: None

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE:

Physical State:

Liquid.

Color:

Milky white / opaque white.

ODOR:

Slight citrus

ODOR THRESHOLD:

Not available.

pH-VALUE:

~6.0-8.5

FREEZE POINT:

~32°F

INITIAL BOILING POINT:

~209°F

FLASH POINT:

None

FLAMMABILITY (SOLID, GAS):

Not applicable

UPPER/LOWER FLAMMABILITY LIMITS:

Not available.

VAPOR PRESSURE:

Not available.

VAPOR DENSITY:

Not available.

EVAPORATION RATE:	Not available.
RELATIVE DENSITY:	0.99
SOLUBILITY:	Soluble in water.
PARTITION COEFFICIENT:	Not available.
AUTO-IGNITION TEMPERATURE:	Not available.
DECOMPOSITION TEMPERATURE:	Not available.
VISCOSITY:	~1.0 cSt @ 25°C

10. STABILITY AND REACTIVITY:

REACTIVITY: Incompatible with strong oxidizing agents.

CHEMICAL STABILITY: Stable under normal conditions. No stabilizers are needed under normal conditions. No safety issues under normal conditions.

OTHER:

Hazardous reactions: None

Conditions to avoid: None

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products: None known

11. TOXICOLOGICAL INFORMATION:

ROUTES OF EXPOSURE:

Inhalation: No effects known

Ingestion: No effects known

Skin: No effects known

Eye contact: Contact with eyes may result in mild irritation.

DESCRIPTION OF EFFECTS: No known effects

ACUTE TOXICITY

Acute oral toxicity: No data available

Acute inhalation toxicity: No data available

Acute dermal toxicity: No data available

Other routes of administration: No data available

Aspiration toxicity: No data available

SKIN CORROSION/IRRITATION: No data available

SERIOUS EYE DAMAGE/EYE IRRITATION: No data available

RESPIRATORY OR SKIN SENSITIZATION: No data available

REPEATED DOSE TOXICITY: No data available

STOT – single exposure: No data available

STOT – repeated exposure: No data available

CARCINOGENICITY: No data available

MUTAGENICITY: No data available

REPRODUCTIVE TOXICITY: No data available

DISCRIPTION OF SYMPTOMS: Contact with the eyes may result in mild irritation. No other symptoms are known.

OTHER: None of the components in this mixture are found on the National Toxicology Program Report on Carcinogens or has been found to be a possible carcinogen in IARC or OSHA.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: No data available

PRESISTENCE AND DEGRADABILITY: This product is biodegradable by GHS standards.

BIOACCUMULATION POTENTIAL: Unknown - No data available

K_{ow}: No data available

BCF: No data available

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFECTS: No data available

Acute Fish Toxicity: No data available

13. DISPOSAL CONSIDERATIONS:

DISPOSAL CONTAINERS: Dispose container/content according to federal, state, and/or local requirements.

DISPOSAL METHODS: Dispose of according to federal, state, and/or local requirements. Product is not known to be classified as a hazardous waste or material. It may be disposed of as an industrial waste in a manner acceptable to good waste management practices.

PHYSICAL AND CHEMICAL PROPERTIES: Not applicable

SPECIAL PRECAUTIONS: None

-Reader should read Section 8 of this SDS for exposure controls and personal protection

-Do not dispose in the sewer

14. TRANSPORT INFORMATION:

UN NUMBER: Not applicable: Non Hazardous

SHIPPING NAME: Not applicable: Non Hazardous

TRANSPORT HAZARD CLASS: Not applicable: Non Hazardous

PACKING GROUP NUMBER: Not applicable: Non Hazardous

EMERGENCY RESPONSE GUIDE NUMBER: Not applicable: Non Hazardous

ENVIROMENTAL HAZARDS: None

IATA REGULATIONS: Not classified hazardous by IATA or IMO regulations: Non Hazardous

SPECIAL PRECAUSTIONS: None

Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code: Not applicable: Non Hazardous

15. REGULATORY INFORMATION:

U.S Federal Regulations This product is NOT hazardous as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. State Regulations

US. California Proposition 65: This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

The ingredients of this product are reported in the following inventories:

TSCA (USA)	All chemical substances in this product are listed on the TSCA inventory.
DSL (Canadian)	All components of this product are on the Canadian DSL.
AICS (Australian)	On the inventory or in compliance with the inventory.
EINECS (European)	On the inventory or in compliance with the inventory.

WHMIS – Compound is not classified as controlled.

16. OTHER INFORMATION:

DATE PREPARED: November 11, 2015

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