



## SECTION 5.0

# ENVIRONMENTAL IMPACTS



## **Description of the Environment**

The project is to be located in Dartmouth's Burnside Industrial Park. There are no nearby watercourses, wetlands, dwellings, or wells that can be affected by this undertaking.

Abutting businesses to the proposed facility are on 61 Raddall Avenue, as shown on the enclosed detailed burnside industrial park map. The businesses operating beside the proposed facility are Acklands, Government Records, Detroit Diesel and Simple Touch Decorating. These businesses have been adjacent neighbors to Alpha Chemical Limited for three years and have never forwarded any complaint or adverse or other comment regarding our activities.

## **Environmental Impacts**

The company has a policy of zero chemical discharge and of recycling as much waste as is technically feasible. The company believes that its activities will have minimal environmental impact and the processes and impacts can be described as follows,

### A. Land

Bulk tanks used for storage will be compatible with fluids being stored to minimize the risk of accidental leakage to the environment. A preventative maintenance program will be implemented to monitor the integrity each tank and transfer equipment to minimize the risk of accidental release of product into the environment. The bulk tanks will be placed in a secondary containment systems designed to hold 110% of the largest tank plus 10% of all other tanks volume. All product blending will be prepared in mixing vats that are designed to be compatible with the fluids, thus reducing the risk of accidental release of product to the environment. All blending and repackaging will be performed inside a cement containment system designed to hold 110% capacity of the total liquid volume of the fluids being blended or re-packaged. All products will be packaged in UN approved containers to ensure the highest standards of packaging are meet, thus reducing the risk of environment impact during storage and shipment. Any packaging that is returned to our facility that no longer meets UN approvals will be cleaned of residual product and sent to a recycling company to minimize environmental impact to land. Non-recyclable waste is disposed of in a conventional industrial 5 cubic yard garbage bin, which is emptied every 3 – 4 weeks.

### B. Water

There will be minimal impact to any watercourse because all products are stored, blended and re-packaged in secondary containment systems. Products are shipped in UN approved packaging, which meets the highest standards currently available. Rainwater collected in the outside containment systems will be tested in accordance to the municipal storm sewer bylaw. Water that meets the parameters outlined on the storm sewer bylaw will be directly discharged into the nearest storm sewer. Water failing to meet the parameters outlined on the storm sewer bylaw will be sent for treatment at an offsite environmental water treatment facility. All tote, drum and pail washing fluids will be contained, transferred into UN approved packaging for treatment at an approved environmental facility. Wash fluids from cleaning blending vats and process equipment will be contained in UN approved drums,



Labeled and re-used in future blends of compatible products. Fluids that are deemed non-reusable will be sent to an approved third party recycling or disposal facility. All floor drains in the proposed facility will be blocked to prevent dangerous goods from entering the sewer or drain system. The nearest outside drain is located downhill from the building 20 yards from the building. The drain is located such that a spill in either the manufacturing area or warehouse area could not reach the drain.

### C. Air

Bulk tanks containing volatile products will be protected with a pressure/vacuum relief valves to minimize the amount of vapors entering the atmosphere. Vapors generated during the transfer, storage and blending of volatile liquids will be vented directly to the atmosphere while being monitored on a continuous basis utilizing a portable gas detector to determine Lower Explosive Limits (LEL), Carbon Monoxide, and Oxygen levels. Detailed procedures will be written for each volatile product transferred, stored and blended at our facility that outline the control limits of hazardous gas levels as indicated on the MSDS, manufactures safe handling guidelines, Occupational Health & Safety product data and the Department of Environment emission guidelines. Before any volatile product will be transferred, stored or blended at our facility a review of the potentially hazardous vapors will be completed to ensure engineering systems are in place to minimize the environmental impact to air. The work procedures will include detailed engineering control systems required to minimize the effects of hazardous vapors to both the worker and environment. The company's operations do not produce any smell, odor or other noxious emissions of any kind.

Operating Schedule: Hours of business are 8:00 am to 5:00 pm, Monday to Friday. Occasional evening or weekend shifts are run.