

Zinc (and its compounds) Toxic Reduction Summary Plan for Chemfil Canada

There are three Phase 1 toxic substances that require the development of a toxic substance reduction plan based on the criteria set out in the Toxics Reduction Act, 2009.

These substances are:

Zinc (and its compounds)

- Used in manufacturing chemical finished products

Sulphuric Acid (7664-93-9)

- Used in manufacturing chemical finished products and lab test solutions
- Relabelled and sold

Manganese (and its compounds)

- Used in manufacturing chemical finished products

Facility Information:

| | |
|--------------------------------|--|
| Facility Name: | Chemfil Canada Limited |
| NPRI Identification Number: | 0000001951 |
| Two Digit NAICS Code: | 32 |
| Four Digit NAICS Code: | 5999 |
| Six Digit NAICS Code: | 325999 |
| Number of Full-time Employees: | 62 |
| UTM Spatial Coordinated | Latitude: 42.2731 Longitude: -82.9971 |

Owner of the Facility Information

| | |
|---------------|--|
| Name: | Brian Patton |
| Address: | 3258 Marentette Avenue, Windsor, ON, N8X 4G4 |
| Phone Number: | (519) 969-5570 |
| Fax Number: | (519) 969-8512 |
| E-mail: | BPatton@chemfil.ca |

Highest Ranking Employee at the Facility Information

| | |
|---------------|--|
| Name: | Mike Moore |
| Address: | 3258 Marentette Avenue, Windsor, ON, N8X 4G4 |
| Phone Number: | (519) 969-5570 |
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| E-mail: | MMoore@chemfil.ca |

Plan Contact (Coordinating/Preparing/Public/Technical) Information

| | |
|-------------------------|--|
| Name: | Jill Desjardins |
| Address: | 3258 Marentette Avenue, Windsor, ON, N8X 4G4 |
| Phone Number: | (519) 962-9163 |
| Fax Number: | (519) 969-8512 |
| E-mail: | JDesjardins@chemfil.ca |
| Planner License Number: | TSRP0147 |

Statement of Intent: Zinc is currently used by Chemfil in three processes. We intend to reduce our use of zinc at the facility. This facility does not create zinc so the plan will not address reducing its creation.

Objective: Chemfil Canada is committed to manufacturing and distributing quality products in a responsible manner that protects employees, neighbours, customers, visitors, stakeholders and the environment. Chemfil will strive to reduce the amount of Zinc used for chemical blending. This plan will determine the technical and economical feasibility of each option to determine which, if any, are viable for implementation at this time.

Target: Chemfil Canada intends to reduce the use of zinc by 3.5 per cent (2712 kg) within 2 to 7 years.

Description of why Zinc is used

Chemfil Canada is a chemical manufacturer. Zinc is used to manufacture zinc phosphate pretreatment chemical blends that are shipped off-site for use at customer facilities. During the manufacturing process zinc is not created or destroyed; it remains as zinc in the finished product.

Options to be Implemented

The following options have been identified for implementation to reduce the use or releases of zinc.

- Switch customers from zinc pretreatment to zirconium pretreatment
- Reduce zinc pretreatment line from several formulas to a few lower zinc formulas
- Reuse lab retain samples containing zinc in production batches
- Review standard deviation with production employees

Material of Feedstock Substitution

Switch Customers from Zinc Pretreatment to Zirconium Pretreatment

The following summarizes the timeline associated with the implementation of switching customers to zirconium pretreatment

| Step | Target Completion Date |
|-------------------------------------|--|
| Get approval from customers | 1-7 years |
| Perform customer specific trials | 1-4 years |
| Evaluate performance from trials | 4 months – 1 year after approval and testing |
| Convert line from Zinc to Zirconium | |

Estimated Reductions

Estimated Zinc Reductions following Material Substitution (zinc is not created or transferred)

| | Used (tonnes/yr) | On-site releases (tonnes/yr) | | | Disposal (tonnes/yr) | | Contained in product (tonnes/yr) |
|-----------------|------------------|------------------------------|-------|------|----------------------|----------|----------------------------------|
| | | Air | Water | Land | On-site | Off-site | |
| Baseline | 77.8 | 0.000011 | 0 | 0 | 0 | 0.0585 | 77.7 |
| Reduction Total | 77.46 | 0 | 0 | 0 | 0 | 0.0582 | 77.36 |
| Reduction | 0.337 | 0 | 0 | 0 | 0 | 0.0003 | 0.3367 |
| % Reductions | 0.43% | 0% | 0% | 0% | 0% | 0.51% | 0.43% |

Product Redesign or Reformulation

The following summarizes the timeline associated with the implementation of reducing the zinc phosphate pretreatment formulas from several options to only a few of the lower zinc version formulas.

| Step | Target Completion Date |
|----------------------------------|---------------------------------------|
| Get approval from customers | 1-3 years |
| Perform customer specific trials | 1-3 years |
| Evaluate performance from trials | 4-8 months after approval and testing |
| Convert line | |

Estimated Reductions

Estimated Zinc Reductions following Product Redesign or Reformulation (zinc is not created or transferred)

| | Used (tonnes/yr) | On-site releases (tonnes/yr) | | | Disposal (tonnes/yr) | | Contained in product (tonnes/yr) |
|---------------|------------------|------------------------------|-------|------|----------------------|----------|----------------------------------|
| | | Air | Water | Land | On-site | Off-site | |
| Baseline | 77.8 | 0.000011 | 0 | 0 | 0 | 0.0585 | 77.7 |
| Reduced Total | 75.43 | 0 | 0 | 0 | 0 | 0.0575 | 75.4 |
| Reduction | 2.37 | 0 | 0 | 0 | 0 | 0.001 | 2.37 |
| % Reductions | 3.0% | 0% | 0% | 0% | 0% | 1.7% | 3.1% |

On-Site Reuse or Recycling

Reuse Lab Retain Samples Containing Zinc in Production Batches

The following summarizes the timeline associated with the implementation of reusing lab retains in production batches

| Step | Target Completion Date |
|--|-------------------------|
| Create a list of all retains that contain zinc oxide | June – October 31, 2013 |
| Train lab staff on sample segregation | |
| Train production on proper way to add samples to mixer | |

Estimated Reductions

Estimated Zinc Reductions following On-site Reuse and Recycling (zinc is not created or transferred)

| | Used (tonnes/yr) | On-site releases (tonnes/yr) | | | Disposal (tonnes/yr) | | Contained in product (tonnes/yr) |
|---------------|------------------|------------------------------|-------|------|----------------------|----------|----------------------------------|
| | | Air | Water | Land | On-site | Off-site | |
| Baseline | 77.8 | 0.000011 | 0 | 0 | 0 | 0.0585 | 77.7 |
| Reduced Total | 77.797 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduction | 0.0035 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Reductions | 0.004% | 0% | 0% | 0% | 0% | 0% | 0% |

Training or Improved Operating Practices

Review Standard Deviation with Production Employees

The following summarizes the timeline associated with the implementation of standard deviation training

| Step | Target Completion Date |
|------------------------------|--------------------------|
| Develop training program | June – December 31, 2013 |
| Present to Health and Safety | |
| Provide training session | |

Estimated Reductions

Estimated Zinc Reductions following Training and Improved Operating Practices (zinc is not created or transferred)

| | Used (tonnes/yr) | On-site releases (tonnes/yr) | | | Disposal (tonnes/yr) | | Contained in product (tonnes/yr) |
|---------------|------------------|------------------------------|-------|------|----------------------|----------|----------------------------------|
| | | Air | Water | Land | On-site | Off-site | |
| Baseline | 77.8 | 0.000011 | 0 | 0 | 0 | 0.0585 | 77.7 |
| Reduced Total | 77.7 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduction | 0.001 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Reductions | 0.001% | 0% | 0% | 0% | 0% | 0% | 0% |

This summary accurately reflects the current version of the plan.

Recommendations and plan certification were done by

Jill Desjardins

Planner License Number TSRP0147

Plan Certifications for Zinc (and its compounds)

As of December 20, 2012, I, Michael Moore, certify that I have read the report on the toxic substance reduction plan for the toxic substance referred to below and am familiar with its contents, and to my knowledge the information contained in the report is factually accurate and the report complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under the Act.

Zinc (and its compounds)



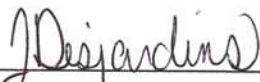
Michael Moore, Chemfil Canada Limited
(Highest Ranking Employee)



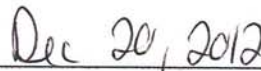
Date

As of December 20, 2012, I, Jill Desjardins certify that I am familiar with the processes at Chemfil Canada Limited that use or create the toxic substance referred to below, that I agree with the estimates referred to in subparagraphs 7 iii, iv and v of subsection 4 (1) of the Toxics Reduction Act, 2009 that are set out in the plan dated (insert version date) and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.

Zinc (and its compounds)



Jill Desjardins
Toxic Substance Reduction Planner



Date