Batch 10 Scan

This information is according to the government's profile of the substance. Data relevant to ecological screening assessments were identified in original literature, review documents, and commercial and government databases prior to December 2005. Some additional information was found on external agency websites. Properties and chemical characteristics may also have been estimated by government staff using Quantitative Structure Activity Relationship (QSAR) models. Those highlighted in blue are considered substances to watch.

1. CAS No.	**42739-61-7**
Chemical Substance	**Bis[2,3-bis(hydroxyimino)-N-(2-methoxyphenyl)butyramidato]nickel (nickel BHMB)**
PBiT	Yes
Toxicity	Low potential for exposure based on Health Canada's Simple Exposure Tool; it has not been classified for hazard by any of the international agencies considered under the Simple Hazard Tool.
Use and Exposure	One company reported importing 100 - 1000 kg into Canada in 2005. The DSL codes indicate use as a colourant in pigments, stains, dyes and inks, and in plastics. No information on any releases into the environment has been identified. Modelled log Kow is 6.58. Only negligible amount of the substance is expected to remain in air, and in water most would adsorb to soil and sediment. Modelling suggests it is persistent in water, soil, and sediment, and four models suggest that it is bioaccumulative (BAF >1 800 000, BCF for 3 models > 23 000). QSAR models also suggest that it is potentially highly hazardous to aquatic organisms (acute LC/EC50 ≤ 1.0 mg/L). Long-range transport is expected to be low (406 km) based on the TaPL3 model.
Assessment	Nickel BHMB has the potential to cause ecological harm if it were to be released into the Canadian environment. Because it persists in the environment, and because of its lipophilic character, it could bioaccumulate and possibly be biomagnified in trophic food chains. It has also demonstrated potential for relatively high toxicity to aquatic organisms. Monitoring data regarding its presence in the environment and its effects on non-aquatic organisms has yet to be identified.
2. CAS No.	**64365-17-9**
Chemical Substance	**Resin acids and Rosin acids, hydrogenated, esters with pentaerythritol (HRPE)**
PBiT	Yes
Toxicity	Low potential for exposure based on Health Canada's Simple Exposure Tool; it has not been classified for hazard by any of the international agencies considered under the Simple Hazard Tool.
Use and Exposure	No recent information on the manufacture in or importation into Canada of this substance has been identified. It is a US, OECD, and International Council of Chemical Associations HPV chemical. DSL codes indicate uses in paint, adhesive and sealant, and as a formulation component. There is also no information on its releases into the environment. Modelled log Kow is 5.78. Only a negligible amount of the substance is expected to remain in air upon release, with most partitioning into soil and sediment. Empirical and modelled data suggests it is persistent in water, soil and sediment. Modelled data also suggest that it is bioaccumulative (BAF > 250 000 and BCFs > 5 000). QSAR models also suggest that it may be highly hazardous to aquatic organisms (LC50 ≤ 1.0 mg/L). Long-range transport is expected to be low (338 km) based on the TaPL3 model.
Assessment	HRPE has the potential to cause ecological harm if it were to be released into the Canadian environment. Because it persists in the environment, and because of its lipophilic character, it could bioaccumulate and possibly be biomagnified in trophic food chains. It has also demonstrated potential for relatively high toxicity to aquatic organisms. Monitoring data

	regarding its presence in the environment and its effects on non-aquatic organisms has yet to be identified.
3. CAS No.	**65997-06-0**
Chemical Substance	**Rosin, hydrogenated**
PBiT	Yes
Toxicity	Greatest potential for exposure based on Health Canada's Simple Exposure Tool; it has not been classified for hazard by any of the international agencies considered under the Simple Hazard Tool.
Use and Exposure	Fifteen companies reported import of this substance above the threshold of 100 kg per year (10 companies between 100-1,000 kg/year; 3 companies between 1,001 – 100,000 kg/yr; 2 companies > 100,000 kg/year). A foreign company, primarily engaged in adhesive, glue, and caulking manufacture, also reported exporting 1001-100,000 kg/year. It is a US, OECD, and International Council of Chemical Associations HPV chemical. As per DSL codes, it may be used as a colourant; in adhesives, paints, solvent, electronics and plastics; in electrical products; in printing and publishing; in photographic applications. There is also no information on its releases into the environment. Modelled log Kow is 6.63. Little will remain in air if released there, but none was predicted to partition there if released elsewhere. The majority will partition into soil and sediment. Empirical and modelled data suggests it is persistent in water, soil, and sediment. Three of four models suggest it is bioaccumulative (BAF > 2 000 000, two BCFS > 40 000) and QSAR models suggest it may be highly hazardous to aquatic organisms (acute LC50/EC50 ≤ 1.0 mg/L mg/L). Long-range transport is expected to be low (94 km) based on the TaPL3 model.
Assessment	Rosin, hydrogenated has the potential to cause ecological harm if it were to be released into the Canadian environment. Preliminary information suggests a large volume of use in commerce. Because it persists in the environment, and because of its lipophilic character, it could bioaccumulate and possibly be biomagnified in trophic food chains. It has also demonstrated potential for relatively high toxicity to aquatic organisms. Monitoring data regarding its presence in the environment and its effects on non-aquatic organisms has yet to be identified.
4. CAS No.	**65997-13-9**
Chemical Substance	**Resin acids and Rosin acids, hydrogenated, esters with glycerol (HRGE)**
PBiT	Yes
Toxicity	Intermediate potential for exposure based on Health Canada's Simple Exposure Tool; it has not been classified for hazard by any of the international agencies considered under the Simple Hazard Tool.
Use and Exposure	There were no reports of import or manufacture of this chemical in Canada, but it is a US, OECD, and International Council of Chemical Associations HPV chemical. DSL codes indicate uses in adhesive, paint, and as a formulation component. Modelled log Kow is 5.3. A negligible amount of the substance is expected to remain in air, and most will partition into soil and sediment. Empirical and modelled data suggest that it is persistent in water, soil, and sediment. Three of four models suggest it is bioaccumulative (BAF > 49 000, two BCFs > 8 000) and QSAR models suggest it may be highly hazardous to aquatic organisms (acute LC50/EC50 ≤ 1.0 mg/L mg/L). Long-range transport is expected to be low (264 km) based on the TaPL3 model.
Assessment	HRGE has the potential to cause ecological harm if released into the environment in Canada. Its persistence in the environment and its lipophilic nature indicates a potential for bioaccumulation and that it could biomagnify through the food chain. It has also demonstrated potential for relatively high toxicity to aquatic organisms. Monitoring data regarding its presence in the environment and its effects on non-aquatic organisms has yet to be identified.
5. CAS No.	**68648-53-3**

Chemical Substance	**Resin acids and Rosin acids, hydrogenated, esters with triethylene glycol (HRTE)**
PBiT	Yes
Toxicity	Low potential for exposure based on Health Canada's Simple Exposure Tool; it has not been classified for hazard by any of the international agencies considered under the Simple Hazard Tool.
Use and Exposure	There were no reports of import or manufacture of this chemical in Canada. DSL codes indicate uses in adhesive and sealants. No information concerning release of HRTE to the environment has been identified. Modelled log Kow is 5.40. A negligible amount of the substance is expected to remain in air, with most partitioning into soil and sediment. Empirical and modelled data suggests it is persistent in water, soil, and sediment. Three of four models suggest it will bioaccumulate (BAF > 71 000, two BCFs > 10 000) and two models suggest it may be highly hazardous to aquatic organisms (acute LC/EC50 ≤ 1 mg/L). Long-range transport is expected to be low (261 km) based on the TaPL3 model.
Assessment	HRTE has the potential to cause ecological harm if released into the environment in Canada. Its persistence in the environment and its lipophilic nature indicates a potential for bioaccumulation and that it could biomagnify through the food chain. It has also demonstrated potential for relatively high toxicity to aquatic organisms. Monitoring data regarding its presence in the environment and its effects on non-aquatic organisms has yet to be identified.
6. CAS No.	**85702-90-5**
Chemical Substance	**2,9,11,13-Tetraazanonadecanethioic acid, 19-isocyanato-11-(6-isocyanatohexyl)-10,12-dioxo-, S-[3-(trimethoxysilyl)propyl] ester (TIDTE)**
PBiT	Yes
Toxicity	Low potential for exposure based on Health Canada's Simple Exposure Tool; it has not been classified for hazard by any of the international agencies considered under the Simple Hazard Tool.
Use and Exposure	In Canada, no manufacture of TIDTE was reported in 2005, but one company reported importing 100 - 1,000 kg per year. One company also identified a stakeholder interest in this substance.. DSL codes indicate use as a formulation component and in adhesive. No information concerning the releases of TIDTE to the environment has been identified. Modelled log Kow is 6.62. No amount of the substance is expected to remain in air, with most adsorbing to soil or sediment. Modelled data indicates it is persistent in water, soil, and sediment. Three of four models suggest it will bioaccumulate (BAF > 1 900 000, two BCFs > 40 000) and two models suggest it may be highly hazardous to aquatic organisms (acute LC50/EC50 ≤ 0.086 mg/L). Long-range transport is expected to be low (469 km) based on the TaPL3 model.
Assessment	TIDTE has the potential to cause ecological harm if released into the environment in Canada. Its persistence in the environment and its lipophilic nature indicates a potential for bioaccumulation and that it could biomagnify through the food chain. It has also demonstrated potential for relatively high toxicity to aquatic organisms. Monitoring data regarding its presence in the environment and its effects on non-aquatic organisms has yet to be identified.
7. CAS No.	**124751-15-1**
Chemical Substance	**Resin acids and rosin acids, fumarated, barium salts (RFBS)**
PBiT	Yes
Toxicity	Low potential for exposure based on Health Canada's Simple Exposure Tool; it has not been classified for hazard by any of the international agencies considered under the Simple Hazard Tool.
Use and Exposure	There were no reports of manufacture in or import into Canada of this substance at or above the reporting threshold of 100 kg in 2005. DSL codes indicate use as a pigment and formulation component. Modelled log Kow is large at 7.33.

	Releases to the environment are presumed to be low. A negligible amount of the substance is expected to remain in air, with most adsorbing to soil and sediment. Modelled data indicates persistence in water, soil, and sediment. Three of four models suggest it will bioaccumulate (BAF > 3 750 000, two BCFs > 5 000) and modeled data suggest it may be highly hazardous to aquatic organisms (acute LC/EC50 ≤ 1.0 mg/L). Long-range transport is expected to be low (466 km) based on the TaPL3 model.
Assessment	RFBS has the potential to cause ecological harm if released into the environment. Its persistence in the environment and its lipophilic nature indicates a potential for bioaccumulation and that it could biomagnify through the food chain. It has also demonstrated potential for relatively high toxicity to aquatic organisms. However, the lack of evidence of importation or manufacture of RFBS in Canada at significant quantities suggests very low releases of this chemical into the Canadian environment.
8. CAS No.	**302-01-2**
Chemical Substance	**Hydrazine**
PBiT	No, iT only
Toxicity	Intermediate potential for exposure based on Health Canada's Simple Exposure Tool; it is considered to be a potentially high hazard substance based on its classification as a Group 2B carcinogen by IARC, a Category 2 carcinogen by the EC, a Group B2 carcinogen by the US EPA, and is “reasonably anticipated to be a human carcinogen” by the US NTP.
Use and Exposure	No information on recent manufacture in or importation into Canada of this substance has been identified. Hydrazine is an EU HPV chemical. DSL codes indicate use as an antioxidant, chemical intermediate, and formulation component, and possible use in plastics, fragrances, surface finishing, and water treatment. It is a primary natural product of nitrogen fixation by Azotobacter agile. Experimental log Kow is -2.07. Releases have been tracked by NPRI, with total releases and disposals in 2005 being 2400 kg and 655 kg, respectively. It will mostly partition into air, water and soil. Empirical data does not suggest persistence in air or water; that in other mediums was not elaborated on. Modelled data suggest a low potential for bioaccumulation (BCF < 0.016). Empirical data indicates it may be highly hazardous to aquatic organisms (LC/EC50 ≤ 1.0 mg/L). Long-range transport potential was not mentioned.
Assessment	Hydrazine Is not expected to be persistent or bioaccumulative, although the current assessment is limited. Recent information on volume in Canadian commerce and releases into the environment are unknown. Its concentrations in various environmental media and LRTP are also unknown, as are its effects in ecological compartments other than water. International classifications indicate that it may pose a high hazard to human health.
9. CAS No.	**330-54-1**
Chemical Substance	**Urea, N'-(3,4-dichlorophenyl)-N,N-dimethyl (Diuron)**
PBiT	No, PiT only
Toxicity	Intermediate potential for exposure based on Health Canada's Simple Exposure Tool; it has been classified as a Category 3 carcinogen by the EC.
Use and Exposure	No information on the recent manufacture in or importation into Canada of this substance has been identified. It is an EU and OECD HPV chemical. DSL codes indicate use as a catalyst, formulation component, oxidizing agent, polymer additive, and use in automotive/aircraft/watercraft. Experimental log Kows range from 2.68-2.82. There is no information on its release into the Canadian environment. Only negligible amount is expected to remain in air, with the majority partition into soil and to a lesser degree, into water. Empirical and modelled data indicates persistence in water, soil, and sediment. Empirical and modelled data suggest that it is not bioaccumulative (all BAF and BCFs < 5000). Empirical

	evidence indicates that diuron causes harm to aquatic organisms at relatively low concentrations (i.e. some acute LC/EC50 ≤ 1.0 mg/L). Long-range transport potential was not mentioned.
Assessment	Diuron Is not expected to be bioaccumulative. Recent information on volume in Canadian commerce and releases into the environment are unknown. Its concentrations in various environmental media and LRTP are also unknown, as are its effects in ecological compartments other than water. An international classification indicates that it may pose a high hazard to human health.
10. CAS No.	**7440-48-4**
Chemical Substance	**Cobalt**
PBiT	No, P only and B unknown
Toxicity	Greatest potential for exposure based on Health Canada's Simple Exposure Tool; it has been classified as a Group 2B carcinogen by IARC.
Use and Exposure	No recent information on the manufacture in or importation into Canada of this substance has been identified. It is an OECD HPV chemical. DSL code indicate use as an analytical reagent, formulation component, catalyst, polymer additive, and in automotive, fragrance, and photographic/photocopier applications. Cobalt can be found “combined in various forms with other elements” in the environment. No release information was identified. It is not expected to partition into air, with elemental cobalt being expected to be found in soil and sediment. Some may run off into surface water. The moiety of concern (Co2+) may be found in water, soil, and sediment. Elemental cobalt is considered persistent in the environment because Co2+ is considered infinitely persistent. Bioaccumulation could not be interpreted. While empirical evidence suggests that Co2+ is hazardous at low concentrations (LC/EC50 ≤ 0.60 mg/L), elemental cobalt’s suspected limited release of Co2+ in water suggests it has a low potential to cause harm to aquatic organisms. This logic runs contrary to that of the comment surrounding persistence. Long-range transport potential was not reported.
Assessment	Rationales differ between conclusions on persistence and toxicity. Furthermore, bioaccumulation information was not interpreted. Recent information on volume in Canadian commerce and releases into the environment are unknown. Its LRTP is also unknown, as are its effects in ecological compartments other than water. An international classification indicates that it may pose a high hazard to human health.
11. CAS No.	**7646-79-9**
Chemical Substance	**Cobalt chloride**
PBiT	No, PiT only and B unknown
Toxicity	Intermediate potential for exposure based on Health Canada's Simple Exposure Tool; it has been classified as a Category 2 carcinogen by the EC.
Use and Exposure	No information on the recent manufacture in or importation into Canada of this substance has been identified. DSL codes indicate use within the following applications: absorbents, analytical reagents, water/waste treatment, electronics, agriculture, food, mining and transportation. Cobalt can be found “combined in various forms with other elements” in the environment. No information concerning releases of cobalt chloride into the Canadian environment was identified. It is not expected to partition into air, with cobalt chloride being expected to be found in soil and sediment. Some may run off into surface water. The moiety of concern (Co2+) may be found in water, soil, and sediment. Cobalt chloride is considered persistent in the environment because Co2+ is considered infinitely persistent. Bioaccumulation could not be interpreted. Empirical evidence suggests that Co2+ is hazardous at low concentrations (LC/EC50 ≤ 0.60 mg/L), and

	because cobalt chloride's solubility in water is higher than the acute aquatic toxicity, it too is considered to have a potential to cause harm to aquatic organisms. Long-range transport potential was not reported.
Assessment	Bioaccumulation information was not interpreted. Recent information on volume in Canadian commerce and releases into the environment are unknown. Its concentration in the environment and LRTP is also unknown, as are its effects in ecological compartments other than water. An international classification indicates that it may pose a high hazard to human health.
12. CAS No.	**10124-43-3**
Chemical Substance	**Sulfuric acid, cobalt(2+) salt (1:1) (Cobalt sulfate)**
PBiT	No, PiT only and B unknown
Toxicity	Greatest potential for exposure based on Health Canada's Simple Exposure Tool; it has been classified as a Category 2 carcinogen by the EC and is "reasonably anticipated to be a human carcinogen" by the US NTP.
Use and Exposure	No information on the recent manufacture in or importation into Canada of this substance has been identified. DSL codes indicate use in the following applications: antioxidants, chemical intermediate, catalyst, finishing reagent, formulation component, agriculture, food, metallurgy, mining, petroleum, and water/waste treatment. No information concerning releases of cobalt sulfate into the Canadian environment has been identified. It is not expected to partition into air, with cobalt sulfate being expected to be found in soil and sediment. Some may run off into surface water. The moiety of concern (Co^{2+}) may be found in water, soil, and sediment. Cobalt sulfate is considered persistent in the environment because Co^{2+} is considered infinitely persistent. Bioaccumulation could not be interpreted. Empirical evidence suggests that Co^{2+} is hazardous at low concentrations (LC/EC50 ≤ 0.60 mg/L), and because cobalt sulfate's solubility in water is higher than the acute aquatic toxicity, it too is considered to have a potential to cause harm to aquatic organisms. Long-range transport potential was not reported.
Assessment	Bioaccumulation information was not interpreted. Recent information on volume in Canadian commerce and releases into the environment are unknown. Its concentration in the environment and LRTP is also unknown, as are its effects in ecological compartments other than water. An international classification indicates that it may pose a high hazard to human health.